

Link to open the web page for ARG-ANNOT: <http://www.mediterranee-infection.com/article.php?laref=282&titre=arg-annot>

The screenshot shows a web browser window with the URL www.mediterranee-infection.com/article.php?laref=282&titre=arg-annot. The page features a dark blue header with navigation links: QUI SOMMES-NOUS?, PÔLE HOSPITALIER & PRÉVENTION, MICROBIOLOGIE & SCIENCES HUMAINES, NEW GENOMES, MICROBES & INFECTIONS, VALORISATION, FORMATIONS ET RECRUTEMENT, INDICATEURS DE PERFORMANCES, and ESPACE PRESSE. A British flag icon is visible in the top right corner. The main content area has a light blue background with a large, faint leaf graphic. On the left, there is a sidebar with the logo for 'MÉDITERRANÉE INFECTION' and a list of navigation items: Les équipes de recherche, Les plateformes, Thématiques clés & découvertes, Base de données (with sub-items MST Mycobacterium avium and URMS Database), ARG-ANNOT (highlighted in a dark blue bar), and Sciences Humaines & Sociales. The main content area displays the title 'ARG-ANNOT' under the sub-header 'MICROBIOLOGIE & SCIENCES HUMAINES', followed by the subtitle 'Antibiotic Resistance Gene-ANNOTation'. A paragraph describes the tool: 'ARG-ANNOT (Antibiotic Resistance Gene-ANNOTation) is a new tool that was created to detect existing and putative new antibiotic resistance (AR) genes in bacterial genomes. ARG-ANNOT uses a local blast program in Bio-Edit software that allows the user to analyze sequences without web interface.' Below this, there are four links with icons: 'Screenshot for help', 'Database sequence file', 'Link to download BioEdit', and 'Tutorial'. At the bottom left, the footer text reads '© IHU Méditerranée Infection - Contact / Plan du site / Crédits'.

Accueil > Microbiologie & Sciences Humaines > Base de données > ARG-ANNOT

MICROBIOLOGIE & SCIENCES HUMAINES

ARG-ANNOT

Antibiotic Resistance Gene-ANNOTation

ARG-ANNOT (Antibiotic Resistance Gene-ANNOTation) is a new tool that was created to detect existing and putative new antibiotic resistance (AR) genes in bacterial genomes. ARG-ANNOT uses a local blast program in Bio-Edit software that allows the user to analyze sequences without web interface.

- ➔ Screenshot for help
- ➔ Database sequence file
- ➔ Link to download BioEdit
- ➔ Tutorial

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1- Download of the BioEdit



BioEdit
Biological sequence alignment editor for Win95/98/NT/2K/XP/7

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Tom Hall
Ibis Biosciences
Carlsbad, CA 92008

Download BioEdit.zip
and install setup.exe file

- BioEdit.zip (Full install)**
- Bug fixes / changes
- BioEdit General information
- BioDoc.pdf (pdf format help doc)
- View Screenshots

BioEdit is a biological sequence alignment editor written for Windows 95/98/NT/2000/XP/7. An intuitive multiple document interface with convenient features makes alignment and manipulation of sequences relatively easy on your desktop computer. Several sequence manipulation and analysis options and links to external analysis programs facilitate a working environment which allows you to view and manipulate sequences with simple point-and-click operations.

BioEdit's features include:

- Several modes of hand alignment
- Automated ClustalW alignment
- Automated Blast searches (local and WWW)
- Plasmid drawing and annotation
- Accessory application configuration
- Restriction mapping
- RNA comparative analysis tools
- Graphical matrix data viewing tools
- Shaded alignment figures
- Translation-based nucleic acid alignment
- ABI trace viewing, editing and printing
- Customizable ... [other features](#)

Note: BioEdit is no longer being regularly maintained, and the **documentation is out of date and no longer maintained**. BioEdit is free for use by any and all interested parties, but is supplied as is. Users must agree with the terms of the [license](#).

Citeline.com
Enter disease, therapy or topic and click Search: [?](#) Tips


Be updated on the software you use!
[software.informer](#)

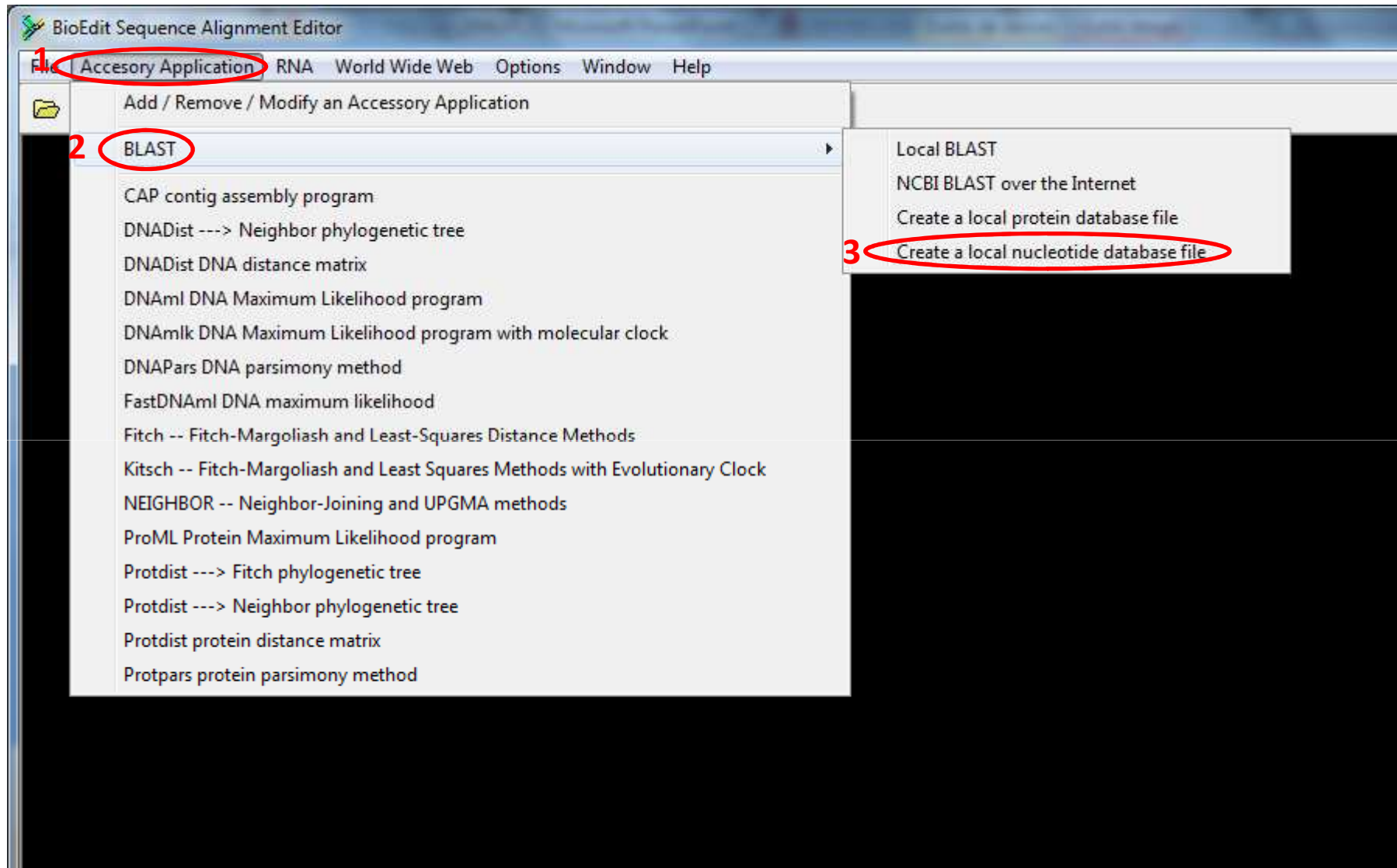
Current version 7.2.1
Last updated 8/27/2013
Tom Hall
Thomas.Hall@abbott.com

[BioEdit](#)
Software Informer



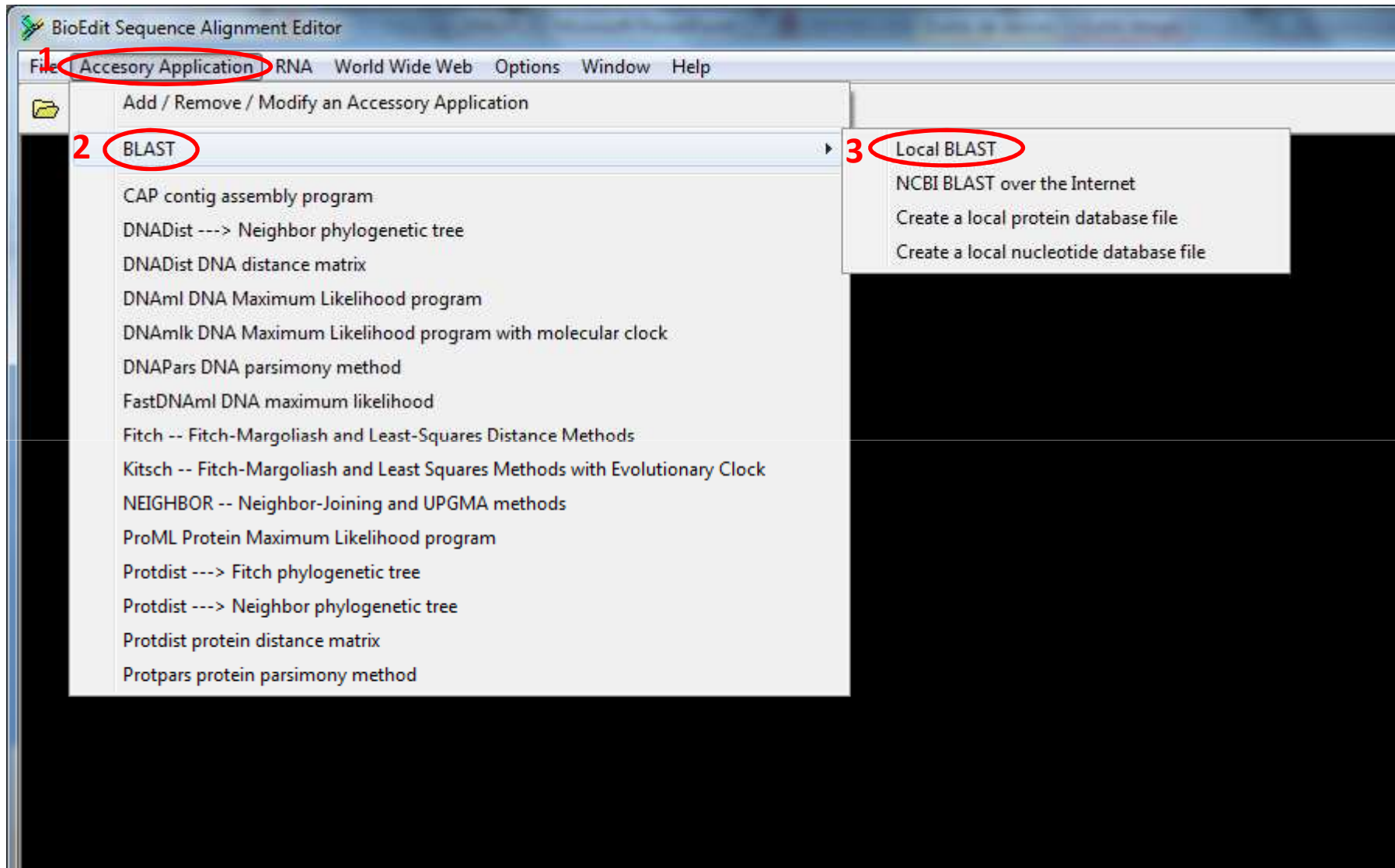
Copyright © 1999 Caredata.com, Inc.

2- After installing the BioEdit on your PC. Open the BioEdit () to create local nucleotide database



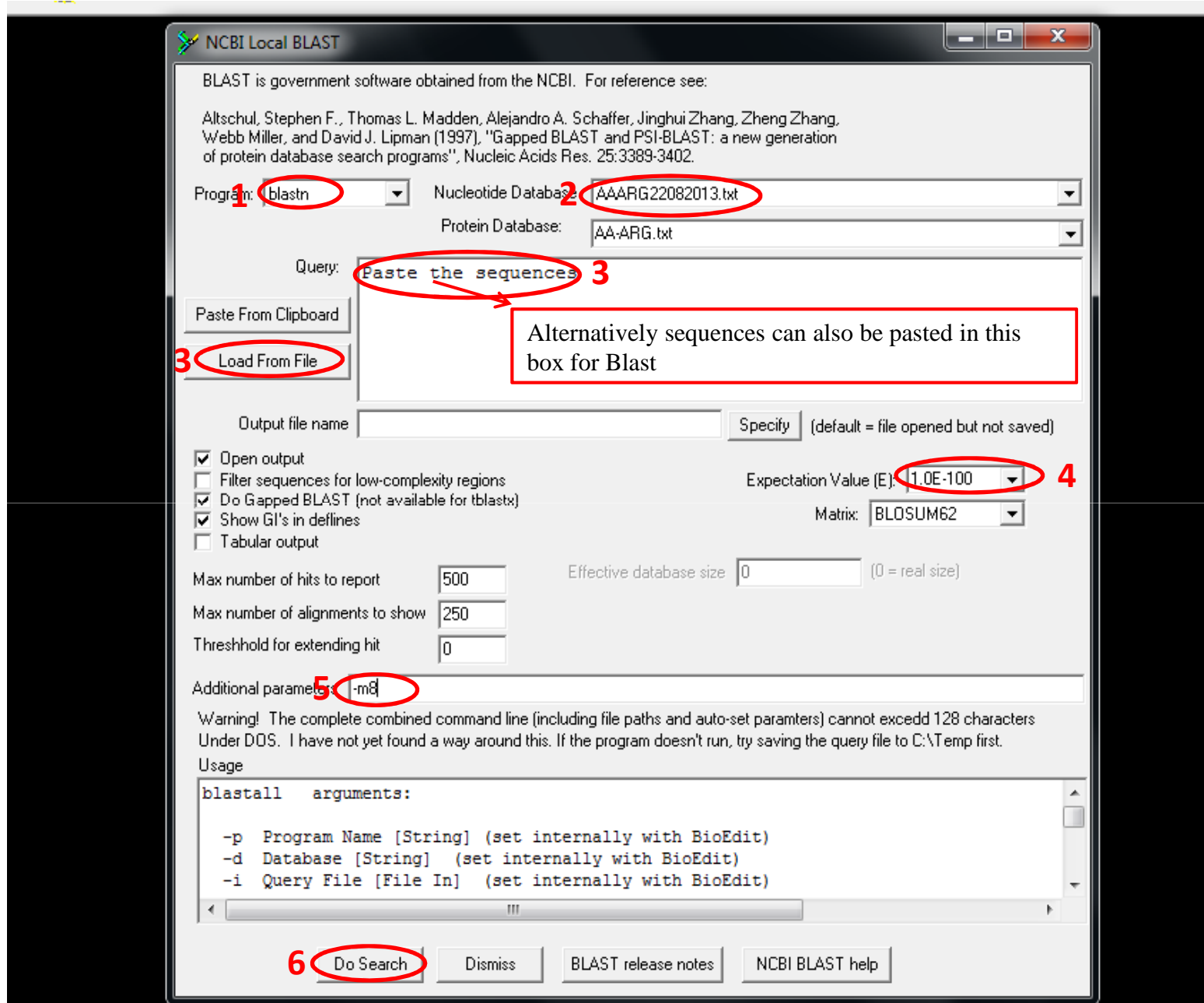
Navigate the database file from the PC and create local nucleotide database file. Database for amino acids can be created in similar manner.

3- To perform blast follow the steps:



Follow the steps 1, 2 and 3 for opening the window for the Blast.

4- Criteria for blast



Follow the step 1 to select the program, 2 to select database, 3 to either paste or load the file , 4 to set e-value, 5 to define format (-m8 tabular), 6 to perform blast

5- Blast Output:

gi 480129356 gb APRF01000025.1	(Bla)TEM-60:AF047171:136-996:861	98.84	861	10	0	18680	19540	1	861	0.0	1628
gi 480129356 gb APRF01000025.1	(Bla)TEM-89:AY039040:189-1022:861	99.52	834	4	0	18680	19513	1	834	0.0	1622
gi 480129356 gb APRF01000025.1	(AGly)Aph3''Ia:FJ172370:38668-39483:816	100.00	816	0	0	25314	26129	816	1	0.0	1618
gi 480129356 gb APRF01000025.1	(Bla)TEM-162:EF468463:67-927:861	98.61	861	12	0	18680	19540	1	861	0.0	1612
gi 480129356 gb APRF01000025.1	(Bla)TEM-102:AY029354:3-833:831	99.64	823	3	0	18688	19510	9	831	0.0	1608
gi 480129356 gb APRF01000025.1	(Bla)TEM-124:AY327540:1-858:858	98.49	861	10	1	18680	19540	1	858	0.0	1600
gi 480129356 gb APRF01000025.1	(Bla)TEM-193:JN935135:1-861:861	98.26	861	15	0	18680	19540	1	861	0.0	1588
gi 480129356 gb APRF01000025.1	(Bla)TEM-26B:L19940:198-1006:861	99.75	809	2	0	18680	19488	1	809	0.0	1588
gi 480129356 gb APRF01000025.1	(Bla)TEM-10:U09188:198-1005:858	99.75	808	2	0	18680	19487	1	808	0.0	1586
gi 480129356 gb APRF01000025.1	(AGly)AadA1-pm:JQ690540:7968-8798:831	99.88	802	1	0	30238	31039	30	831	0.0	1582
gi 480129356 gb APRF01000025.1	(AGly)Aph3-Ia:HQ840942:23569-24384:816	99.26	814	6	0	25316	26129	814	1	0.0	1566
gi 480129356 gb APRF01000025.1	(Bla)TEM-194:JN935136:1-861:861	97.91	861	18	0	18680	19540	1	861	0.0	1564
gi 480129356 gb APRF01000025.1	(Bla)TEM-178:X97254:154-1011:858	97.91	862	13	3	18680	19540	1	858	0.0	1546
gi 480129356 gb APRF01000025.1	(Bla)TEM-1:JQ735917:1-861:861	99.14	810	6	1	18680	19488	1	810	0.0	1542
gi 480129356 gb APRF01000025.1	(Bla)TEM-118:AY130285:1-785:785	99.75	785	2	0	18716	19500	1	785	0.0	1540
gi 480129356 gb APRF01000025.1	(Bla)TEM-110:AY130283:1-785:785	99.75	785	2	0	18716	19500	1	785	0.0	1540
gi 480129356 gb APRF01000025.1	(Bla)TEM-7:AF527798:1-785:785	99.75	785	2	0	18716	19500	1	785	0.0	1540
gi 480129356 gb APRF01000025.1	(Bla)TEM-75:AY130284:1-785:785	99.62	785	3	0	18716	19500	1	785	0.0	1532
gi 480129356 gb APRF01000025.1	(AGly)AadA1b:JN596991:1364-2155:792	99.37	792	5	0	30248	31039	1	792	0.0	1530
gi 480129356 gb APRF01000025.1	(AGly)AadA1:M95287:3320-4111:792	99.37	792	5	0	30248	31039	1	792	0.0	1530
gi 480129356 gb APRF01000025.1	(Bla)TEM-117:AY130282:1-764:764	99.61	764	3	0	18716	19479	1	764	0.0	1491
gi 480129356 gb APRF01000025.1	(Bla)TEM-191:JF949916:1-757:757	99.34	757	5	0	18710	19466	1	757	0.0	1461
gi 480129356 gb APRF01000025.1	(Bla)TEM-192:JF949915:1-754:754	99.34	754	5	0	18710	19463	1	754	0.0	1455
gi 480129356 gb APRF01000025.1	(AGly)AadA22:AM261837:74-865:792	97.47	792	20	0	30248	31039	1	792	0.0	1411
gi 480129356 gb APRF01000025.1	(AGly)AadA23:AJ809407:119-898:781	98.42	759	12	0	30281	31039	22	780	0.0	1409
gi 480129356 gb APRF01000025.1	(AGly)AadA21:AY171244:47-838:792	97.35	792	21	0	30248	31039	1	792	0.0	1403
gi 480129356 gb APRF01000025.1	(AGly)AadA15:DQ393783:1800-2591:792	97.04	777	23	0	30248	31024	1	777	0.0	1358
gi 480129356 gb APRF01000025.1	(Phe)CatA1:V00622:244-903:660	99.85	660	1	0	13125	13784	660	1	0.0	1300
gi 480129356 gb APRF01000025.1	(Tet)TetR:HF545434:53576-54226:651	100.00	651	0	0	7324	7974	651	1	0.0	1291
gi 480129356 gb APRF01000025.1	(AGly)AadA12:AY665771:1-792:792	94.85	777	40	0	30248	31024	1	777	0.0	1223
gi 480129356 gb APRF01000025.1	(AGly)AadA17:FJ460181:774-1565:792	93.82	777	48	0	30248	31024	1	777	0.0	1160
gi 480129356 gb APRF01000025.1	(AGly)AadA24:HQ123586:88-768:781	93.44	778	51	0	30260	31037	1	778	0.0	1138
gi 480129356 gb APRF01000025.1	(AGly)AadA11:AJ567827:1-792:792	93.04	790	55	0	30248	31037	1	790	0.0	1130
gi 480129356 gb APRF01000025.1	(AGly)AadA8b:AM040708:1174-1965:792	92.55	792	59	0	30248	31039	1	792	0.0	1102
gi 480129356 gb APRF01000025.1	(AGly)AadA8:AF326210:1-792:792	92.05	792	63	0	30248	31039	1	792	0.0	1070
gi 480129356 gb APRF01000025.1	(Sul)SulI:AF071413:6700-7539:840	100.00	521	0	0	1	521	320	840	0.0	1033
gi 480129356 gb APRF01000025.1	(Sul)SulI:AF071413:6700-7539:840	100.00	495	0	0	31544	32038	1	495	0.0	981
gi 480129356 gb APRF01000025.1	(AGly)Aac3-I:X15852:1250-1783:534	99.06	534	5	0	28671	29204	1	534	0.0	1019
gi 480129356 gb APRF01000025.1	(AGly)AadA3:AF047479:1296-2087:792	90.53	792	75	0	30248	31039	1	792	0.0	975
gi 480129356 gb APRF01000025.1	(AGly)AadA13:AY713504:1-798:798	89.95	776	78	0	30260	31035	13	788	0.0	920
gi 480129356 gb APRF01000025.1	(AGly)AadA2:X68227:66-945:780	90.46	744	71	0	30281	31024	22	765	0.0	912
gi 480129356 gb APRF01000025.1	(AGly)Aac3-I:AJ877225:5293-5757:465	92.26	465	36	0	28740	29204	1	465	0.0	636

Select and copy the blast output and paste in the XL-sheet.

6- Blast analysis:

	A	B	C	D	E	F	G	H	I	J	K	L
	Query id	Database id	% Identity	Alignment length	Mismatches	Gap	QSS*	QSE**	DSS***	DSE****	e-value	Bit score
2	gi 480132254 gb APRF01000008.1	amase_class-A:NC_010410:2507740	100.00	1275	0	0	315294	316568	1275	1	0.0	2527
3	gi 480132254 gb APRF01000008.1	(Bla)OXA-69:AY750911:1-825:825	100.00	825	0	0	645518	646342	825	1	0.0	1635
4	gi 480132254 gb APRF01000008.1	(Bla)OXA-248:HE963769:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
5	gi 480132254 gb APRF01000008.1	(Bla)OXA-112:EF650038:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
6	gi 480132254 gb APRF01000008.1	(Bla)OXA-110:EF650036:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
7	gi 480132254 gb APRF01000008.1	(Bla)OXA-107:EF650033:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
8	gi 480132254 gb APRF01000008.1	(Bla)OXA-92:DQ335566:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
9	gi 480132254 gb APRF01000008.1	(Bla)OXA-250:HE963771:1-825:825	99.76	825	2	0	645518	646342	825	1	0.0	1620
10	gi 480132254 gb APRF01000008.1	(Bla)OXA-120:HE963768:1-825:825	98.91	825	9	0	645518	646342	825	1	0.0	1564
11	gi 480132254 gb APRF01000008.1	(Bla)OXA-208:FR853176:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1540
12	gi 480132254 gb APRF01000008.1	(Bla)OXA-88:DQ392963:9-833:825	98.55	825	12	0	645518	646342	825	1	0.0	1540
13	gi 480132254 gb APRF01000008.1	(Bla)OXA-65:AY750908:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1540
14	gi 480132254 gb APRF01000008.1	(Bla)OXA-95:DQ519089:9-833:825	98.42	825	13	0	645518	646342	825	1	0.0	1532
15	gi 480132254 gb APRF01000008.1	(Bla)OXA-94:DQ519088:9-833:825	98.42	825	13	0	645518	646342	825	1	0.0	1532
16	gi 480132254 gb APRF01000008.1	(Bla)OXA-91:DQ519086:1199-2023:825	98.42	825	13	0	645518	646342	825	1	0.0	1532
17	gi 480132254 gb APRF01000008.1	(Bla)OXA-180:HM570036:1-825:825	98.30	825	14	0	645518	646342	825	1	0.0	1524
18	gi 480132254 gb APRF01000008.1	(Bla)OXA-98:AM279652:1-825:825	98.30	825	14	0	645518	646342	825	1	0.0	1524
19	gi 480132254 gb APRF01000008.1	(Bla)OXA-64:AY750907:1-825:825	98.30	825	14	0	645518	646342	825	1	0.0	1524
20	gi 480132254 gb APRF01000008.1	(Bla)OXA-217:JN603240:1-825:825	98.18	825	15	0	645518	646342	825	1	0.0	1516
21	gi 480132254 gb APRF01000008.1	(Bla)OXA-216:FR865168:1-825:825	98.18	825	15	0	645518	646342	825	1	0.0	1516
22	gi 480132254 gb APRF01000008.1	(Bla)OXA-130:EU547445:1-825:825	98.18	825	15	0	645518	646342	825	1	0.0	1516
23	gi 480132254 gb APRF01000008.1	(Bla)OXA-117:GQ423625:1-825:825	98.18	825	15	0	645518	646342	825	1	0.0	1516
24	gi 480132254 gb APRF01000008.1	(Bla)OXA-77:AY949202:1-825:825	98.18	825	15	0	645518	646342	825	1	0.0	1516
25	gi 480132254 gb APRF01000008.1	(Bla)OXA-68:AY750910:1-825:825	98.18	825	15	0	645518	646342	825	1	0.0	1516
26	gi 480132254 gb APRF01000008.1	(Bla)OXA-66:EF051061:485-1309:825	98.18	825	15	0	645518	646342	825	1	0.0	1516
27	gi 480132254 gb APRF01000008.1	(Bla)OXA-249:HE963770:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509
28	gi 480132254 gb APRF01000008.1	(Bla)OXA-206:AB634250:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509
29	gi 480132254 gb APRF01000008.1	(Bla)OXA-203:HQ998857:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509
30	gi 480132254 gb APRF01000008.1	(Bla)OXA-202:HQ734813:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509
31	gi 480132254 gb APRF01000008.1	(Bla)OXA-199:HQ637466:1233-2057:82	98.06	825	16	0	645518	646342	825	1	0.0	1509
32	gi 480132254 gb APRF01000008.1	(Bla)OXA-150:GQ853681:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509
33	gi 480132254 gb APRF01000008.1	(Bla)OXA-144:FJ872530:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509
34	gi 480132254 gb APRF01000008.1	(Bla)OXA-128:EU375515:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509
35	gi 480132254 gb APRF01000008.1	(Bla)OXA-109:FI157357:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509

Select and copy the blast output and paste in the XL-sheet and reduce the redundancy using removes duplicates from the QSS and QSE column.

7. Use of XL function to reduce redundancy

The screenshot displays the Microsoft Excel interface with the 'Données' (Data) tab selected. The ribbon includes options for 'Données externes', 'Connexions', 'Actualiser tout', 'Propriétés', 'Modifier les liens d'accès', 'Trier', 'Filtrer', 'Effacer', 'Réappliquer', 'Avancé', 'Convertir', 'Supprimer les doublons', and 'Validation de données'. The active worksheet is named 'Query id' and contains a table with the following columns: Query id, Database id, % Identity, Alignment length, Mismatches, Gap, QSS*, QSE**, DSS***, DSE****, e-value, and Bit score. The data rows show various query and database identifiers along with their respective metrics. A dialog box titled 'Supprimer les avertissements en double' is overlaid on the table, with the 'Supprimer les doublons...' option circled in red.

	A	B	C	D	E	F	G	H	I	J	K	L
	Query id	Database id	% Identity	Alignment length	Mismatches	Gap	QSS*	QSE**	DSS***	DSE****	e-value	Bit score
2	gi 480132254 gb APRF01000008.1	amase_class-A):NC_010410:2507740	100.00	1275	0	0	315294	316568	1275	1	0.0	2527
3	gi 480132254 gb APRF01000008.1	(Bla)OXA-69:AY750911:1-825:825	100.00	825	0	0	645518	646342	825	1	0.0	1635
4	gi 480132254 gb APRF01000008.1	(Bla)OXA-248:HE963769:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
5	gi 480132254 gb APRF01000008.1	(Bla)OXA-112:EF650038:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
6	gi 480132254 gb APRF01000008.1	(Bla)OXA-110:EF650036:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
7	gi 480132254 gb APRF01000008.1	(Bla)OXA-107:EF650033:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
8	gi 480132254 gb APRF01000008.1	(Bla)OXA-92:DQ335566:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
9	gi 480132254 gb APRF01000008.1	(Bla)OXA-250:HE963771:1-825:825	99.76	825	2	0	645518	646342	825	1	0.0	1620
10	gi 480132254 gb APRF01000008.1	(Bla)OXA-120:HE963768:1-825:825	98.91	825	9	0	645518	646342	825	1	0.0	1564
11	gi 480132254 gb APRF01000008.1	(Bla)OXA-208:FR853176:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1540
12	gi 480132254 gb APRF01000008.1	(Bla)OXA-88:DQ392903:9-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1540
13	gi 480132254 gb APRF01000008.1	(Bla)OXA-65:AY750908:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1540
14	gi 480132254 gb APRF01000008.1	(Bla)OXA-95:DQ519089:9-833:825	98.42	825	13	0	645518	646342	825	1	0.0	1532
15	gi 480132254 gb APRF01000008.1	(Bla)OXA-94:DQ519088:9-833:825	98.42	825	13	0	645518	646342	825	1	0.0	1532
16	gi 480132254 gb APRF01000008.1	(Bla)OXA-91:DQ519086:1199-2023:825	98.42	825	13	0	645518	646342	825	1	0.0	1532
17	gi 480132254 gb APRF01000008.1	(Bla)OXA-180:HM570036:1-825:825	98.42	825	13	0	645518	646342	825	1	0.0	1524
18	gi 480132254 gb APRF01000008.1	(Bla)OXA-98:AM279652:1-825:825	98.42	825	13	0	645518	646342	825	1	0.0	1524
19	gi 480132254 gb APRF01000008.1	(Bla)OXA-64:AY750907:1-825:825	98.42	825	13	0	645518	646342	825	1	0.0	1524
20	gi 480132254 gb APRF01000008.1	(Bla)OXA-217:JN603240:1-825:825	98.42	825	13	0	645518	646342	825	1	0.0	1516
21	gi 480132254 gb APRF01000008.1	(Bla)OXA-216:FR865168:1-825:825	98.42	825	13	0	645518	646342	825	1	0.0	1516
22	gi 480132254 gb APRF01000008.1	(Bla)OXA-130:EU547445:1-825:825	98.42	825	13	0	645518	646342	825	1	0.0	1516
23	gi 480132254 gb APRF01000008.1	(Bla)OXA-117:GQ423625:1-825:825	98.42	825	13	0	645518	646342	825	1	0.0	1516
24	gi 480132254 gb APRF01000008.1	(Bla)OXA-77:AY949202:1-825:825	98.42	825	13	0	645518	646342	825	1	0.0	1516
25	gi 480132254 gb APRF01000008.1	(Bla)OXA-68:AY750910:1-825:825	98.42	825	13	0	645518	646342	825	1	0.0	1516
26	gi 480132254 gb APRF01000008.1	(Bla)OXA-66:EF051061:485-1309:825	98.42	825	13	0	645518	646342	825	1	0.0	1516
27	gi 480132254 gb APRF01000008.1	(Bla)OXA-249:HE963770:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509
28	gi 480132254 gb APRF01000008.1	(Bla)OXA-206:AB634250:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509
29	gi 480132254 gb APRF01000008.1	(Bla)OXA-203:HQ998857:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509
30	gi 480132254 gb APRF01000008.1	(Bla)OXA-202:HQ734813:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509
31	gi 480132254 gb APRF01000008.1	(Bla)OXA-199:HQ637466:1233-2057:825	98.06	825	16	0	645518	646342	825	1	0.0	1509
32	gi 480132254 gb APRF01000008.1	(Bla)OXA-150:GQ853681:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509
33	gi 480132254 gb APRF01000008.1	(Bla)OXA-144:FJ872530:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509
34	gi 480132254 gb APRF01000008.1	(Bla)OXA-138:EU775515:1-825:825	98.06	825	16	0	645518	646342	825	1	0.0	1509

8. Use of XL function to reduce redundancy

The screenshot shows the Microsoft Excel interface with a data table. The table has the following columns: Query id, Database id, % Identity, Alignment length, Mismatches, Gap, QSS*, QSE**, DSS***, DSE****, e-value, and Bit score. The data rows show various query and database identifiers with associated metrics.

A dialog box titled "Supprimer les doublons" (Remove Duplicates) is open over the table. The dialog contains the following text: "Pour supprimer les valeurs en double, sélectionnez une ou plusieurs colonnes contenant des doublons." Below this text are two buttons: "Sélectionner tout" and "Désélectionner tout". The "Désélectionner tout" button is circled in red. To the right of these buttons is a checkbox labeled "Mes données ont des en-têtes" (My data has headers), which is checked. Below the buttons is a list of columns with checkboxes: "Query id", "Database id", "% Identity", "Alignment length", and "Mismatches", all of which are checked. At the bottom of the dialog are "OK" and "Annuler" (Cancel) buttons.

Query id	Database id	% Identity	Alignment length	Mismatches	Gap	QSS*	QSE**	DSS***	DSE****	e-value	Bit score
gi 480132254 gb APRF01000008.1	amase_class-A):NC_010410:2507740	100.00	1275	0	0	315294	316568	1275	1	0.0	2527
gi 480132254 gb APRF01000008.1	(Bla)OXA-69:AY750911:1-825:825	100.00	825	0	0	645518	646342	825	1	0.0	1635
gi 480132254 gb APRF01000008.1	(Bla)OXA-248:HE963769:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
gi 480132254 gb APRF01000008.1	(Bla)OXA-112:EF650038:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
gi 480132254 gb APRF01000008.1	(Bla)OXA-110:EF650036:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
gi 480132254 gb APRF01000008.1	(Bla)OXA-107:EF650033:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
gi 480132254 gb APRF01000008.1	(Bla)OXA-92:DQ335566:1-825:825	99.88	825	1	0	645518	646342	825	1	0.0	1628
gi 480132254 gb APRF01000008.1	(Bla)OXA-250:HE963771:1-825:825	99.76	825	2	0	645518	646342	825	1	0.0	1620
gi 480132254 gb APRF01000008.1	(Bla)OXA-120:HE963768:1-825:825	98.91	825	9	0	645518	646342	825	1	0.0	1564
gi 480132254 gb APRF01000008.1	(Bla)OXA-208:FR853176:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1540
gi 480132254 gb APRF01000008.1	(Bla)OXA-88:DQ392963:9-833:825	98.55	825	12	0	645518	646342	825	1	0.0	1540
gi 480132254 gb APRF01000008.1	(Bla)OXA-65:AY750908:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1540
gi 480132254 gb APRF01000008.1	(Bla)OXA-95:DQ519089:9-833:825	98.55	825	12	0	645518	646342	825	1	0.0	1532
gi 480132254 gb APRF01000008.1	(Bla)OXA-94:DQ519088:9-833:825	98.55	825	12	0	645518	646342	825	1	0.0	1532
gi 480132254 gb APRF01000008.1	(Bla)OXA-91:DQ519086:1199-1200:825	98.55	825	12	0	645518	646342	825	1	0.0	1532
gi 480132254 gb APRF01000008.1	(Bla)OXA-180:HM570036:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1524
gi 480132254 gb APRF01000008.1	(Bla)OXA-98:AM279652:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1524
gi 480132254 gb APRF01000008.1	(Bla)OXA-64:AY750907:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1524
gi 480132254 gb APRF01000008.1	(Bla)OXA-217:JN603240:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1516
gi 480132254 gb APRF01000008.1	(Bla)OXA-216:FR865168:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1516
gi 480132254 gb APRF01000008.1	(Bla)OXA-130:EU547445:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1516
gi 480132254 gb APRF01000008.1	(Bla)OXA-117:GQ423625:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1516
gi 480132254 gb APRF01000008.1	(Bla)OXA-77:AY949202:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1516
gi 480132254 gb APRF01000008.1	(Bla)OXA-68:AY750910:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1516
gi 480132254 gb APRF01000008.1	(Bla)OXA-66:EF051061:485-486:825	98.55	825	12	0	645518	646342	825	1	0.0	1516
gi 480132254 gb APRF01000008.1	(Bla)OXA-249:HE963770:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1509
gi 480132254 gb APRF01000008.1	(Bla)OXA-206:AB634250:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1509
gi 480132254 gb APRF01000008.1	(Bla)OXA-203:HQ998857:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1509
gi 480132254 gb APRF01000008.1	(Bla)OXA-202:HQ734813:1-825:825	98.55	825	12	0	645518	646342	825	1	0.0	1509
gi 480132254 gb APRF01000008.1	(Bla)OXA-199:HQ637466:1233-2057:82	98.06	825	16	0	645518	646342	825	1	0.0	1509

9. Use of XL function to reduce redundancy

The screenshot shows Microsoft Excel with a data table. The table has the following columns: Query id, Database id, % Identity, Alignment length, Mismatches, Gap, QSS*, QSE**, DSS***, DSE****, e-value, and Bit score. The data rows show various query and database identifiers, identity percentages, and alignment statistics.

A dialog box titled "Supprimer les doublons" (Remove Duplicates) is open. It contains the following options:

- Sélectionner tout
- Désélectionner tout
- Mes données ont des en-têtes

The "Colonnes" (Columns) list contains the following items:

- Gap
- QSS*
- QSE**
- DSS***
- DSE****

The "OK" button is highlighted with a red circle and the number "2".

