**Table S1 All Species accession numbers of hsp70/110**

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Species name | **Associated Gene Name** | Protein ID |
| 1 | *Homo sapiens* | HSPA1A | NP\_005336.3 |
| HSPA1B | NP\_005337.2 |
| HSPA1L | NP\_005518.3 |
| HSPA2 | NP\_068814.2 |
| HSPA4 | NP\_002145.3 |
| HSPA4L | NP\_055093.2 |
| HSPA5 | NP\_005338.1 |
| HSPA6 | NP\_002146.2 |
| HSPA7 | UniProtKB/Swiss-Prot: P48741.2 |
| HSPA8 | NP\_006588.1 |
| HSPA9 | NP\_004125.3 |
| HSPA12A | NP\_079291.2 |
| HSPA12B | NP\_443202.3 |
| HSPA13 | NP\_008879.3 |
| HSPA14 | NP\_057383.2 |
| HSPH1 | NP\_006635.2 |
| HYOU1 | NP\_001124463.1 |
| 2 | *Mus musculus* | Hspa1a | NP\_034609.2 |
| Hspa1b | NP\_034608.2 |
| Hspa1l | NP\_038586.2 |
| Hspa2 | NP\_001002012.1 |
| Hspa4 | NP\_032326.3 |
| Hspa4l | NP\_035150.3 |
| Hspa5 | NP\_001156906.1 |
| hspa8 | NP\_112442.2 |
| Hspa9 | NP\_034611.2 |
| Hspa12a | NP\_780408.1 |
| Hspa12b | NP\_082582.1 |
| Hspa13 | NP\_084477.1 |
| Hspa14 | NP\_056580.2 |
| Hsph1 | NP\_038587.2 |
| Hyou1 | NP\_067370.3 |
| 3 | *Gallus gallus* | Hspa2 | NP\_001006686.1 |
| Hspa4 | XP\_003642142.1 |
| Hspa4l | NP\_001012594.1 |
| Hspa5 | NP\_990822.1 |
| Hspa8 | NP\_990334.1 |
| Hspa9 | NP\_001006147.1 |
| Hspa12a | XP\_421779.3 |
| Loc770082 | XP\_001233402.2  |
| Hspa13 | NP\_001025964.2 |
| Hspa14 | XP\_416996.3  |
| Hsph1  | NP\_001153170.1 |
| Hyou1 | NP\_001006588.1 |
| 4 | *Anolis carolinensis* | Hspa2-201 | ENSACAP00000015494 |
| Hspa4-201 | ENSACAP00000013089 |
| Hspa4-202 | ENSACAP00000023153 |
| Hspa4l-201 | ENSACAP00000011642 |
| Hspa5-201 | ENSACAP00000004078 |
| Hspa8-201 | ENSACAP00000004798 |
| Hspa9-201 | ENSACAP00000015698 |
| Hspa12a-201 | ENSACAP00000009931 |
| Hspa12b-201 | ENSACAP00000004138 |
| Hspa13-201 | ENSACAP00000000965 |
| Hspa14-201 | ENSACAP00000001088 |
| Hyou1 | ENSACAP00000013983 |
| Hsph1 | ENSACAP00000004913 |
| 5 | *Danio rerio* | hsp70.3 | NP\_571472.1 |
| hsp70.2 | XP\_003198158.1 |
| mcm5(hsp70) | ENSDARP00000109199 |
| LOC798846(hspa1b) | NP\_001093532.1 |
| hsp70l | NP\_001107061.1 |
| hspa4a | NP\_999881.1  |
| hspa4b | NP\_956151.1 |
| wu:fc07b10(hspa4l) | XP\_690505.2 |
| hspa5 | NP\_998223.1 |
| hspa8a | NP\_001103873.1 |
| hspa8b[hsc70.2(LOC562935)] | NP\_001186941.1 |
| hsc70 | NP\_956908.1 |
| hspa9 | NP\_958483.2 |
| si:dkey-61p9.8 (hsp12a.1) | NP\_001038342.1 |
| si:dkey-61p9.4(hsp12a.2) | XP\_003198604.1 |
| si:dkey-61p9.6(hsp12a.3) | NP\_001038346.2 |
| hspa13 | NP\_001082948.1  |
| hspa14 | NP\_001038541.1 |
| LOC557824 | XP\_001919957.1 |
| hyou1 | NP\_997868.1 |
| 6 | *Oryzias latipes* | hsp70.3(hspa) | XP\_004071143.1  |
| hsp70-5(hspa1b) | NP\_001098384.1 |
| hsc70 | NP\_001098385.1 |
| hsc70.2(hspa8b) | XP\_004075396.1 |
| hspa8a | UniProtKB/Swiss-Prot: Q9W6Y1.1 |
| hspa4a-201 | ENSORLP00000001795 |
| hspa4b-201 | ENSORLP00000007499 |
| hspa4l | XP\_004082341.1 |
| hspa5l | XP\_004074796.1  |
| hspa9-201 | ENSORLP00000013340 |
| hspa12a-201 | ENSORLP00000001447 |
| hspa12b-201 | ENSORLP00000007349 |
| hspa13l | XP\_004075919.1  |
| hspa14-201 | ENSORLP00000015785 |
| hyou1l | XP\_004084567.1  |
| 7 | *oreochromis niloticus* | hspa1lpartial(hsp70.3) | xp\_003442504.1  |
| loc100704606 (hspa1b) | xp\_003444871.1 |
| hspa8a | xp\_003448938.1 |
| hsc70 | xp\_003454400.1  |
| hspa8b | xp\_003455104.1 |
| hspa4l | xp\_003453147.1  |
| hspa5a | xp\_005470418.1  |
| hspa5b | xp\_003459659.1 |
| hspa9  | xp\_003459471.1 |
| loc100699432 | xp\_003457416.1 |
| hspa12b | xp\_003452414.1  |
| loc100708509 | xp\_003441638.1 |
| loc100697637 | xp\_003455685.1 |
| loc100691644 | xp\_003448981.1  |
| 8 | Salmo salar | Hsp70 | APP91800.1 |
| Hsc70 | XP\_013992647.1 |
| Hspa1 | XP\_014046746.1 |
| Hspa4 | ACN58679.1 |
| Hspa4L | XP\_013992269.1 |
| Hspa5 | XP\_013991602.1 |
| Hspa5L | XP\_014053074.1 |
| Hspa8a | XP\_014018258.1 |
| Hspa8b | XP\_014053073.1 |
| Hspa9 | ACN60239.1 |
| Hsp12a | XP\_014058216.1 |
| Hsp12b | XP\_014012126.1 |
| Hspa13 | XP\_014070433.1 |
| Hspa14 | ACN58674.1 |
|  |  | Hyou1 | XP\_013992641.1 |