Table S1. GenBank accession numbers for five *mll* and two *setd1* paralogues and corresponding proteins.

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| --- | --- | --- | --- |
| **Species** | **Gene** | **mRNA** | **Protein** |
| MLL |  |  |  |
| *H.sapiens* | *MLL* | NM\_005933.3 | NP\_005924.2 |
| *P.troglodytes* | *mll* | XM\_508792.2 | XP\_508792.2 |
| *C.lupus* | *mll* | XM\_536554.2 | XP\_536554.2 |
| *B.taurus* | *mll* | XM\_585092.3 | XP\_585092.3 |
| *M.musculus* | *Mll1* | NM\_001081049.1 | NP\_001074518.1 |
| *R.norvegicus* | *mll1* | XM\_236194.4 | XP\_236194.4 |
| *G.gallus* | *mll* | XM\_417896.2 | XP\_417896.2 |
| *D.rerio* | *mll* | NM\_001110279.1 | NP\_001103749.1 |
| *G.morhua* | *mll* | GU441836.2 | ADG23060.1 |
| MLL2 |  |  |  |
| *H.sapiens* | *MLL2* | NM\_003482.3 | NP\_003473.3 |
| *C.lupus* | *mll2* | XM\_543684.2 | XP\_543684.2 |
| *B.taurus* | *mll2* | XM\_583302.4 | XP\_583302.4 |
| *M.musculus* | *Mll2* | XM\_619357.4 | XP\_619357.4 |
| *X.tropicalis* | *mll2* | XM\_002935121.1 | XP\_002935167.1 |
| *O.niloticus* | *mll2* | XM\_003448244.1 | XP\_003448292.1 |
| *G.morhua* | *mll2* | GU441837.1 | ADG23061.1 |
| MLL3 |  |  |  |
| *H.sapiens* | *MLL3* | NM\_170606.2 | NP\_733751.2 |
| *P.troglodytes* | *mll3* | XM\_519508.2 | XP\_519508.2 |
| *M.musculus* | *Mll3* | NM\_001081383.1 | NP\_001074852.1 |
| *G.gallus* | *mll3* | XM\_418542.2 | XP\_418542.2 |
| *O.niloticus* | *mll3* | XM\_003437904.1 | XP\_003437952.1 |
| *D.rerio* | *mll3a* | XM\_001919246.1 | XP\_001919281.1 |
| *G.morhua* | *mll3* | GU441838.1 | ADG23062.1 |
| MLL4 |  |  |  |
| *H.sapiens* | *MLL4* | NM\_014727.1 | NP\_055542.1 |
| *P.troglodytes* | *mll4* | XM\_512597.2 | XP\_512597.2 |
| *M.musculus* | *Wbp7* | NM\_029274.2 | NP\_083550.2 |
| *R.norvegicus* | *mll4* | XM\_341829.3 | XP\_341830.3 |
| *D.rerio* | *mll4a* | XM\_684255.5 | XP\_689347.3 |
| *D.rerio* | *mll4b* | XM\_002664671.1 | XP\_002664717.1 |
| *G.morhua* | *mll4* | GU441839.2 | ADG23063.1 |
| MLL5 |  |  |  |
| *H.sapiens* | *MLL5* | NM\_182931.2 | NP\_891847.1 |
| *C.lupus* | *mll5* | XM\_533102.2 | XP\_533102.2 |
| *B.taurus* | *mll5* | XM\_001789698.1 | XP\_001789750.1 |
| *M.musculus* | *Mll5* | NM\_026984.1 | NP\_081260.1 |
| *R.norvegicus* | *mll5* | XM\_231287.4 | XP\_231287.4 |
| *D.rerio* | *mll5* | XM\_687873.2 | XP\_692965.2 |
| *G.morhua* | *mll5* | GU441840.1 | ADG23064.1 |
| SETD1A |  |  |  |
| *H.sapiens* | *SETD1A* | NM\_014712.1 | NP\_055527.1 |
| *P.troglodytes* | *setd1a* | XM\_523492.2 | XP\_523492.2 |
| *B.taurus* | *setd1a* | XM\_001251264.1 | XP\_001251265.1 |
| *M.musculus* | *Setd1a* | NM\_178029.3 | NP\_821172.2 |
| *D.rerio* | *setd1a* | XM\_001920817.1 | XP\_001920852.1 |
| *C.elegans* | *set-2* | NM\_065639.3 | NP\_498040.1 |
| *G.morhua* | *setd1a* | GU441841.1 | ADG23065.1 |
| SETD1B |  |  |  |
| *H.sapiens* | *SETD1B* | NM\_015048.1 | NP\_055863.1 |
| *C.lupus* | *setd1b* | XM\_543382.2 | XP\_543382.2 |
| *B.taurus* | *setd1b* | XM\_591902.4 | XP\_591902.4 |
| *M.musculus* | *Setd1b* | NM\_001040398.1 | NP\_001035488.1 |
| *G.gallus* | *setd1b* | NM\_001030661.1 | NP\_001025832.1 |
| *D.rerio* | *setd1ba* | NM\_001045134.2 | NP\_001038599.2 |
| *D.rerio* | *setd1bb* | XM\_694848.5 | XP\_699940.5 |
| *G.morhua* | *setd1b* | HQ315825.1 | ADO84691.1 |