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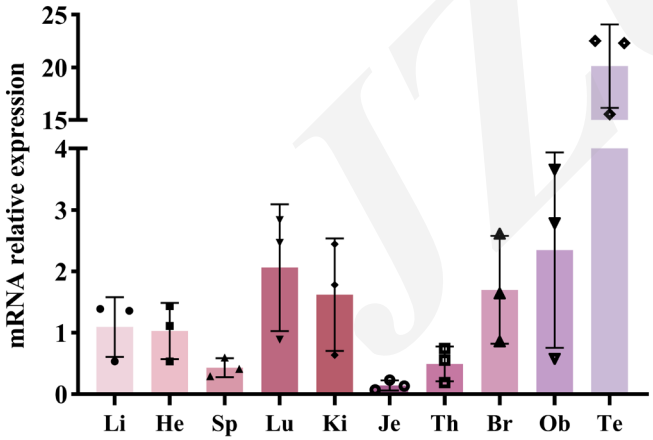
Spatial expression of the nonsense-mediated mRNA decay factors UPF3A and UPF3B among mouse tissues

Key words: Nonsense-mediated mRNA decay, UPF3A, UPF3B

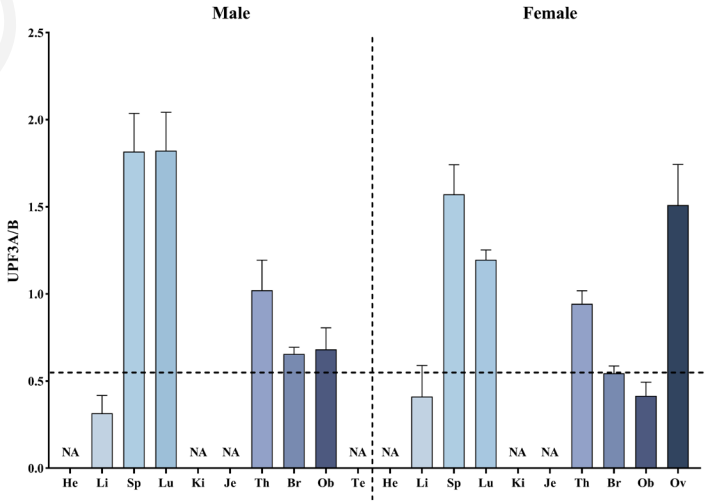
Research Summary

This research mainly focuses on the expression of UPF3A and UPF3B in different tissues of wild type male and female mice and demonstrates that:

- **UPF3A has the highest expression in male germlines.**
- **UPF3A protein is ubiquitously expressed in most mouse tissues.**



The mRNA relative expression of *Upf3a* in tissues of male mice.



The relative protein expression of UPF3A/B.

Innovation points

Technical innovation:
We utilized a newly developed rabbit monoclonal antibody to detect UPF3A and UPF3B proteins simultaneously in a single WB analysis.

Key findings:

- **NMD factor UPF3A is ubiquitously expressed in the mouse.**
- **Four distinct expression patterns of UPF3A and UPF3B proteins among mouse tissues.**

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Innovation points

A series of comprehensive Figures were generated to summarize the spatial expression of the NMD factors UPF3A and UPF3B among mouse tissues.

Figure 1 | The relative mRNA expression of *Upf3a* and *Upf3b* in tissues of C57BL/6 mice.

Figure 2 | The expression of UPF3A and UPF3B proteins in tissues of C57BL/6 mice.

Figure 3 | Comparison of UPF3A and UPF3B proteins in tissues from male and female mice.

Figure 4 | *Upf3a* and *Upf3b* mRNA levels in different mouse and human organs retrieved from NCBI.

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