

PRODUCT INFORMATION



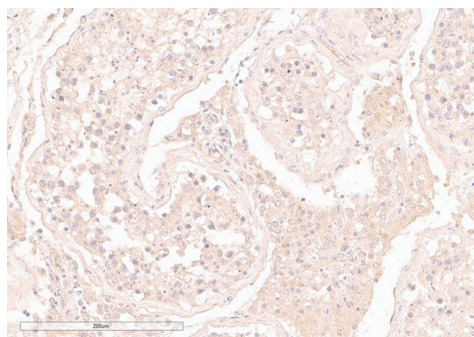
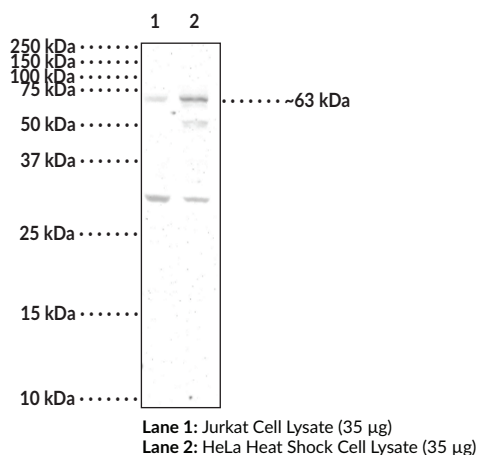
YTHDF2 Polyclonal Antibody

Item No. 27910

Overview and Properties

Contents:	This vial contains 500 µg of protein A-purified polyclonal antibody.
Synonyms:	CLL-associated Antigen KW-14, HGRG8, High-glucose-regulated Protein 8, Renal Carcinoma Antigen NY-REN-2, YTH Domain-containing Family Protein 2
Immunogen:	Full-length recombinant human YTHDF2 protein
Species Reactivity:	(+) Human; other species not tested
Uniprot No.:	Q9Y5A9
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Applications:	Immunofluorescence (IF), immunohistochemistry (IHC), and Western blot (WB); the recommended starting dilution for IF is 1:100 and 1:200 for IHC and WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Immunohistochemistry analysis of formalin-fixed, paraffin-embedded (FFPE) human testis tissue after heat induced antigen retrieval in pH 6.0 citrate buffer. After incubation with YTHDF2 polyclonal antibody (Item No. 27910), at a 1:200 dilution, slides were incubated with biotinylated secondary antibody, followed by alkaline phosphatase-streptavidin and chromogen (DAB).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

YTH-Domain family member 2 (YTHDF2) is a reader protein that binds to N⁶-methyladenosine (m⁶A) to regulate mRNA degradation.^{1,2} YTHDF2 binds to m⁶A sites in the 3'-UTR of mRNA through its C-terminal YTH domain and recruits the CCR4-NOT deadenylase complex *via* its N-terminus to accelerate mRNA localization to decay sites, such as P-bodies, and promote subsequent degradation.¹⁻³ Ythdf2 knockout results in a build-up of maternal mRNA in oocytes that induces female-specific infertility in mice.⁴ Conditional knockout of Ythdf2 increases the number of hematopoietic stem cells (HSCs) without shifting lineage differentiation or inducing malignancies.⁵ It also increases *ex vivo* expansion of human umbilical cord HSCs. Cayman's YTHDF2 Polyclonal Antibody can be used for immunofluorescence, immunohistochemistry, and Western blot applications. The antibody recognizes YTHDF2 at 63 kDa from human samples.

References

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2. Zhong, L., Liao, D., Zhang, M., *et al.* YTHDF2 suppresses cell proliferation and growth via destabilizing the EGFR mRNA in hepatocellular carcinoma. *Cancer Lett.* **442**, 252-261 (2019).
3. Wang, X., Lu, Z., Gomez, A., *et al.* N⁶-Methyladenosine-dependent regulation of messenger RNA stability. *Nature* **505(7481)**, 117-120 (2014).
4. Ivanova, I., Much, C., Di Giacomo, M., *et al.* The RNA m⁶A reader YTHDF2 is essential for the post-transcriptional regulation of the maternal transcriptome and oocyte competence. *Mol. Cell* **67(6)**, 1059-1067 (2017).
5. Li, Z., Qian, P., Shao, W., *et al.* Suppression of m⁶A reader Ythdf2 promotes hematopoietic stem cell expansion. *Cell Res.* **28(9)**, 904-917 (2018).

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