10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

DIS3L2 Antibody

Catalog # ASC11955

Product Information

Application	WB, E
Primary Accession	Q8IYB7
Other Accession	NP_689596, 134288890
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	99279
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	DIS3L2 antibody can be used for detection of DIS3L2 by Western blot at 1 - 2 g/ml. Antibody can also be used for immunohistochemistry starting at 5 g/mL.

Additional Information

Gene ID	129563
Other Names	DIS3-like exonuclease 2 {ECO:0000255|HAMAP-Rule:MF_03045}, hDIS3L2, 3.1.13.- {ECO:0000255|HAMAP-Rule:MF_03045}, DIS3L2 {ECO:0000255|HAMAP-Rule:MF_03045}, FAM6A
Target/Specificity	DIS3L2; DIS3L2 antibody is human, mouse and rat reactive. At least three isoforms of DIS3L2 are known to exist; this antibody will only detect the longest isoform. DIS3L2 is predicted to not cross-react with DIS3 or DIS3L.
Reconstitution & Storage	DIS3L2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	DIS3L2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DIS3L2 {ECO:0000255|HAMAP-Rule:MF_03045}
Synonyms	FAM6A
Function	3'-5'-exoribonuclease that specifically recognizes RNAs polyuridylated at their 3' end and mediates their degradation. Component of an exosome-independent RNA degradation pathway that mediates degradation of both mRNAs and miRNAs that have been polyuridylated by a terminal uridylyltransferase, such as ZCCHC11/TUT4. Mediates degradation of cytoplasmic mRNAs that have been deadenylated and subsequently

	uridylated at their 3'. Mediates degradation of uridylated pre-let-7 miRNAs, contributing to the maintenance of embryonic stem (ES) cells. Essential for correct mitosis, and negatively regulates cell proliferation.
Cellular Location	Cytoplasm. Cytoplasm, P-body

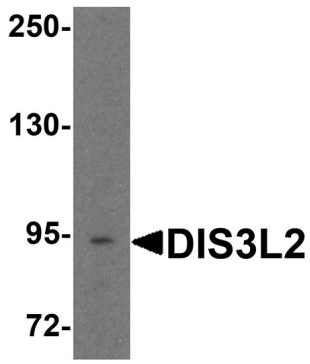
Background

The exosome is involved in a multitude of cellular RNA processing and degradation events (1). DIS3, also known as exosome complex exonuclease RRP44, is a ribonuclease that acts directly in the processing, turnover, and surveillance of a large number of distinct RNA species (2). DIS3L2 is a paralog of DIS3, but unlike DIS3 is located in the cytoplasm (3). DIS3L2 defines a novel eukaryotic RNA degradation pathway and preferentially targets uridylated RNA (4). DIS3L2 mutations have also been associated with sporadic Wilms tumors (3).

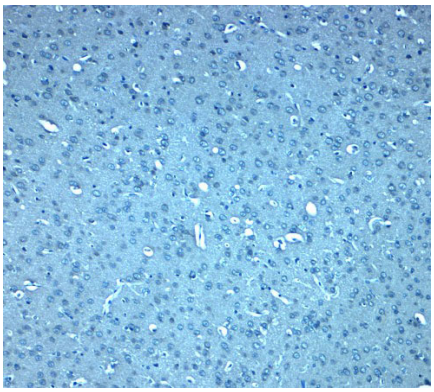
References

Chen CY, Gherzi R, Ong SE, et al. AU binding proteins recruit the exosome to degrade ARE-containing mRNAs. Cell 2001; 107:451-64.
Brouwer R, Allmang C, Raijmakers R, et al. Three novel components of the human exosome. J. Biol. Chem. 2001; 276:6177-84.
Astuti D, Morris MR, Cooper WN, et al. Germline mutations in DIS3L2 cause the Perlman syndrome of overgrowth and Wilms tumor susceptibility. Nat. Genet. 2012; 44:277-84.
Malecki M, Viegas SC, Carneiro T, et al. The exonuclease Dis3L2 defines a novel eukaryotic RNA degradation pathway. EMBO J. 2013; 32:1842-54.

Images



Western blot analysis of DIS3L2 in 3T3 cell lysate with DIS3L2 antibody at 1 µg/ml.



Immunohistochemistry of DIS3L2 in rat brain tissue with DIS3L2 antibody at 5 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.