

PABPC5 (E-13): sc-168885

BACKGROUND

PABPC5 (poly(A) binding protein, cytoplasmic 5), also known as PABP5, is a 382 amino acid cytoplasmic protein that binds the poly(A) tail at the 3' end of most eukaryotic mRNA. PABPC5 may also bind other cytoplasmic RNA sequences *in vivo* and is thought to regulate various steps during mRNA metabolism. Expressed in multiple adult tissues and fetal brain, PABPC5 contains four RRM (RNA recognition motif) domains. PABPC5 is encoded by a gene that maps to human chromosome Xq21.31, a region in close proximity to several translocation breakpoints linked to premature ovarian failure. Chromosome X consists of about 153 million base pairs and nearly 1,000 genes. Color blindness, hemophilia and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently, as males carry a single X chromosome.

REFERENCES

- Blanco, P., et al. 2001. A novel poly(A)-binding protein gene (PABPC5) maps to an X-specific subinterval in the Xq21.3/Yp11.2 homology block of the human sex chromosomes. *Genomics* 74: 1-11.
- Bernardino-Sgherri, J., et al. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. *Cytogenet. Genome Res.* 99: 85-91.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300407. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Deeb, S.S. 2005. The molecular basis of variation in human color vision. *Clin. Genet.* 67: 369-377.
- Sharpe, L.T., et al. 2006. Advantages and disadvantages of human dichromacy. *J. Vis.* 6: 213-223.
- Helderman-van den Eenden, A.T., et al. 2009. Recurrence risk due to germ line mosaicism: Duchenne and Becker muscular dystrophy. *Clin. Genet.* 75: 465-472.

CHROMOSOMAL LOCATION

Genetic locus: PABPC5 (human) mapping to Xq21.31; Pabpc5 (mouse) mapping to X E1.

SOURCE

PABPC5 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PABPC5 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-168885 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

PABPC5 (E-13) is recommended for detection of PABPC5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other PABPC family members.

PABPC5 (E-13) is also recommended for detection of PABPC5 in additional species, including canine and bovine.

Suitable for use as control antibody for PABPC5 siRNA (h): sc-91049, PABPC5 siRNA (m): sc-151981, PABPC5 shRNA Plasmid (h): sc-91049-SH, PABPC5 shRNA Plasmid (m): sc-151981-SH, PABPC5 shRNA (h) Lentiviral Particles: sc-91049-V and PABPC5 shRNA (m) Lentiviral Particles: sc-151981-V.

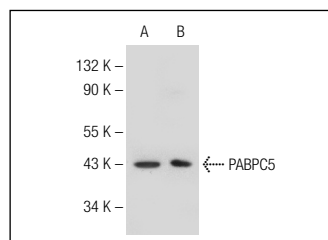
Molecular Weight of PABPC5: 43 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or mouse brain extract: sc-2253.

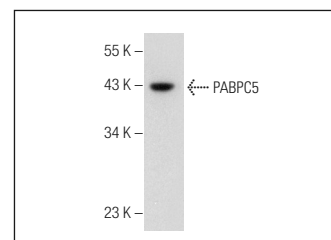
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PABPC5 (E-13): sc-168885. Western blot analysis of PABPC5 expression in HeLa (A) and Jurkat (B) whole cell lysates.



PABPC5 (E-13): sc-168885. Western blot analysis of PABPC5 expression in mouse brain tissue extract.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.