

# EOMES (1A8): sc-293481

## BACKGROUND

EOMES (eomesodermin homolog), also known as TBR2 (T-box-brain2), is the 686 amino acid human homolog of the mouse Eomes protein that contains one T-box DNA binding domain. Genes that contain T-box domains encode proteins that function as transcription factors and are often involved in the regulation of various developmental events. Localized to the nucleus and expressed in the developing brain, EOMES is thought to be involved in neuronal migration and division and may play a role in trophoblast development and gastrulation. Silencing of the EOMES gene can cause mutated or arrested development and may lead to microcephaly disorders which are characterized by reduced head circumference and a malformed brain.

## REFERENCES

- Kimura, N., et al. 1999. A novel mammalian T-box-containing gene, *Tbr2*, expressed in mouse developing brain. *Brain Res. Dev. Brain Res.* 115: 183-193.
- Yi, C.H., et al. 1999. Identification, mapping, and phylogenomic analysis of four new human members of the T-box gene family: EOMES, TBX6, TBX18, and TBX19. *Genomics* 55: 10-20.
- Ueno, M., et al. 2000. Genomic organization, sequence and chromosomal localization of the mouse *Tbr2* gene and a comparative study with *Tbr1*. *Gene* 254: 29-35.
- Russ, A.P., et al. 2000. Eomesodermin is required for mouse trophoblast development and mesoderm formation. *Nature* 404: 95-99.
- Pearce, E.L., et al. 2003. Control of effector CD8<sup>+</sup> T cell function by the transcription factor eomesodermin. *Science* 302: 1041-1043.
- Intlekofer, A.M., et al. 2005. Effector and memory CD8<sup>+</sup> T cell fate coupled by T-bet and eomesodermin. *Nat. Immunol.* 6: 1236-1244.
- Baala, L., et al. 2007. Homozygous silencing of T-box rption factor EOMES leads to microcephaly with polymicrogyria and corpus callosum agenesis. *Nat. Genet.* 39: 454-456.

## CHROMOSOMAL LOCATION

Genetic locus: EOMES (human) mapping to 3p24.1; Eomes (mouse) mapping to 9 F3.

## SOURCE

EOMES (1A8) is a mouse monoclonal antibody raised against amino acids 461-569 representing full length EOMES of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

EOMES (1A8) is recommended for detection of EOMES 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for EOMES siRNA (h): sc-77277, EOMES siRNA (m): sc-77278, EOMES shRNA Plasmid (h): sc-77277-SH, EOMES shRNA Plasmid (m): sc-77278-SH, EOMES shRNA (h) Lentiviral Particles: sc-77277-V and EOMES shRNA (m) Lentiviral Particles: sc-77278-V.

Molecular Weight of EOMES: 73 kDa.

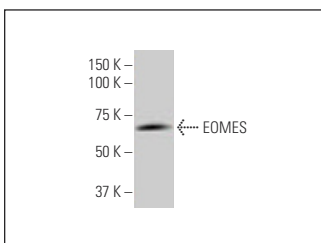
Positive Controls: IMR-32 cell lysate: sc-2409.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



EOMES (1A8): sc-293481. Western blot analysis of EOMES expression in IMR-32 whole cell lysate.

## SELECT PRODUCT CITATIONS

- Shelton, S.M., et al. 2021. Forebrain neural precursor cells are differentially vulnerable to Zika virus infection. *eNeuro* 8: ENEURO.0108-21.2021.
- Patoori, S., et al. 2022. Young transposable elements rewired gene regulatory networks in human and chimpanzee hippocampal intermediate progenitors. *Development* 149: dev200413.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.