EOMES (Y-20): sc-69270



The Power to Question

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.
- 4. Russ, A.P., et al. 2000. Eomesodermin is required for mouse trophoblast development and mesoderm formation. Nature 404: 95-99.
- 5. Pearce, E.L., et al. 2003. Control of effector CD8+ T cell function by the transcription factor Eomesodermin. Science 302: 1041-1043.
- Intlekofer, A.M., et al. 2005. Effector and memory CD8+ T cell fate coupled by T-bet and eomesodermin. Nat. Immunol. 6: 1236-1244.
- Baala, L., et al. 2007. Homozygous silencing of T-box ription 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 (Y-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EOMES of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-69270 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-69270 X, 200 $\mu g/0.1$ ml.

APPLICATIONS

EOMES (Y-20) 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), 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).

EOMES (Y-20) is also recommended for detection of EOMES in additional species, including equine, canine, bovine and porcine.

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.

EOMES (Y-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of EOMES: 73 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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) 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.

STORAGE

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

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com