SANTA CRUZ BIOTECHNOLOGY, INC.

EYA3 (N-16): sc-15101

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

EYA3 (eyes absent homolog 3) is a 573 amino acid protein that localizes to both the nucleus and the cytoplasm and is one of several mammalian homologs of the *Drosophila* eya (eyes absent) protein. Existing as two alternatively spliced isoforms, EYA3 possesses magnesium-catalyzed phosphatase activity and is thought to play a role in transcriptional regulation during organogenesis. Specifically, EYA3 interacts with proteins such as Six1 and, via this interaction, functions to activate the expression of genes that are involved in cellular proliferation and organ development. Upon DNA damage, EYA3 may be phosphorylated by ATM or ATR. The gene encoding EYA3 maps to chromosome 1, which spans about 260 million base pairs and comprises nearly 8% of the human genome.

CHROMOSOMAL LOCATION

Genetic locus: EYA3 (human) mapping to 1p35.3; Eya3 (mouse) mapping to 4 D2.3.

SOURCE

EYA3 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of EYA3 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-15101 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

EYA3 (N-16) is recommended for detection of EYA3 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

EYA3 (N-16) is also recommended for detection of EYA3 in additional species, including equine.

Suitable for use as control antibody for EYA3 siRNA (h): sc-41950, EYA3 siRNA (m): sc-41951, EYA3 shRNA Plasmid (h): sc-41950-SH, EYA3 shRNA Plasmid (m): sc-41951-SH, EYA3 shRNA (h) Lentiviral Particles: sc-41950-V and EYA3 shRNA (m) Lentiviral Particles: sc-41951-V.

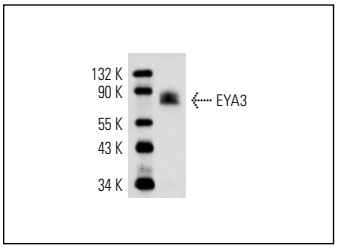
Molecular Weight of EYA3: 63 kDa.

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

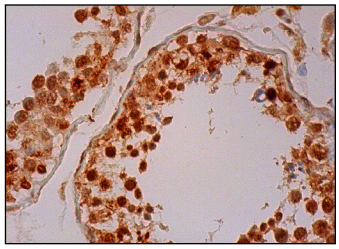
RECOMMENDED SECONDARY REAGENTS

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) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



EYA3 (N-16): sc-15101. Western blot analysis of EYA3 expression in Hep G2 whole cell lysate.



EYA3 (N-16): sc-15101. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts.

SELECT PRODUCT CITATIONS

1. Pawlik, A., et al. 2009. Changes in transcriptome after *in vivo* exposure to ionising radiation reveal a highly specialised liver response. Int. J. Radiat. Biol. 85: 656-671.

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.