SANTA CRUZ BIOTECHNOLOGY, INC.

EYA4 (T-21): sc-15106

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

A gene of chromosome 6q23.2 encodes the 640 amino acid protein, EYA4 (eyes absent). EYA is one of four members of the eyes absent family. A 271 amino acid domain at the carboxyl terminal is highly conserved amongst the members of the eyes absent family. EYA4 is expressed in the craniofacial mesenchyme, the dermamyotome, and the limb. The conserved region in other EYA proteins interacts with SIX, DACH, and G-proteins, which regulate transcription in early embryonic development. SIX translocates EYA1-3 to the nucleus, and G proteins can stop this interaction. Premature stop codon mutations in EYA4 cause postlingual, progressive autosomal dominant hearing loss in humans. This shows that EYA4 is also vital to the mature organ of Corti. EYA4 may cause oculo-dento-digital syndrome, based on its expression pattern and map postion.

CHROMOSOMAL LOCATION

Genetic locus: EYA4 (human) mapping to 6q23.2; Eya4 (mouse) mapping to 10 A3.

SOURCE

EYA4 (T-21) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EYA4 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-15106 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

EYA4 (T-21) is recommended for detection of EYA4 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).

EYA4 (T-21) is also recommended for detection of EYA4 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for EYA4 siRNA (h): sc-41952, EYA4 siRNA (m): sc-41952, EYA4 shRNA Plasmid (h): sc-41952-SH, EYA4 shRNA Plasmid (m): sc-41952-SH, EYA4 shRNA (h) Lentiviral Particles: sc-41952-V and EYA4 shRNA (m) Lentiviral Particles: sc-41952-V.

Molecular Weight (predicted) of EYA4: 70 kDa.

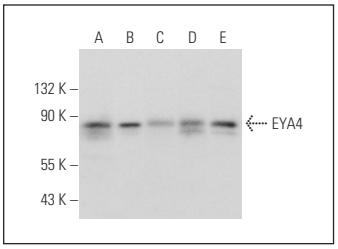
Molecular Weight (observed) of EYA4: 86-90 kDa.

Positive Controls: EYA4 (h): 293T Lysate: sc-369837, A2058 whole cell lysate: sc-364178 or HeLa whole cell lysate: sc-2200.

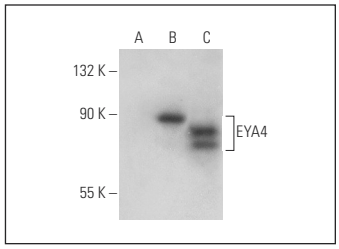
RECOMMENDED SECONDARY REAGENTS

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



EYA4 (T-21): sc-15106. Western blot analysis of EYA4 expression in HeLa (**A**) and Sol8 (**B**) nuclear extracts and A2058 (**C**), HEK293 (**D**) and Sol8 (**E**) whole cell lysates.



EYA4 (T-21): sc-15106. Western blot analysis of EYA4 expression in non-transfected 293T: sc-117752 (**A**), human EYA4 transfected 293T: sc-369837 (**B**) and HeLa (**C**) whole cell lysates.

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.