SANTA CRUZ BIOTECHNOLOGY, INC.

EF-1 α2 (D-15): sc-68481

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Elongation factor 1 α 2 (EF-1 α2) is a eukaryotic protein translation factor that is expressed in terminally differentiated cells of skeletal muscle, heart, and certain areas of the brain. Along with protein synthesis, EF-1 α2 also plays a role in cytoskeletal remodelling and apoptosis. The gene encoding for EF-1 α2 maps to chromosome 20q13.33. Wasted (wst) refers to a spontaneous autosomal recessive mutation in which this gene is deleted, and it leads to tremors and disturbances of gait shortly after weaning, followed by motor neuron degeneration, paralysis, and death by about 28 days in mice. EF-1 α2 has the ability to transform mammalian cells and is highly expressed in tumors of the ovary, breast, and lung, thereby proving a good candidate for an oncogene. In addition to this, EF-1 α2 enhances focus formation, allows anchorage-independent growth, and decreases the doubling time of rodent fibroblasts.

CHROMOSOMAL LOCATION

Genetic locus: EEF1A2 (human) mapping to 20q13.33; Eef1a2 (mouse) mapping to 2 H4.

SOURCE

EF-1 α2 (D-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of EF-1 α2 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-68481 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-68481 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EF-1 α2 (D-15) is recommended for detection of EF-1 α2 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).

EF-1 α2 (D-15) is also recommended for detection of EF-1 α2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for EF-1 α2 siRNA (h): sc-41698, EF-1 α2 siRNA (m): sc-41699, EF-1 α2 shRNA Plasmid (h): sc-41698-SH, EF-1 α2 shRNA Plasmid (m): sc-41699-SH, EF-1 α2 shRNA (h) Lentiviral Particles: sc-41698-V and EF-1 α2 shRNA (m) Lentiviral Particles: sc-41699-V.

EF-1 α2 (D-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

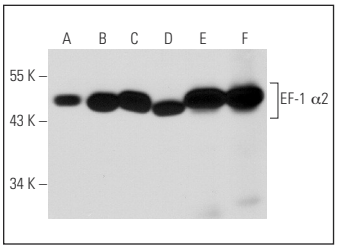
Molecular Weight of EF-1 α2: 50 kDa.

Positive Controls: SK-N-MC nuclear extract: sc-2154, IMR-32 nuclear extract: sc-2148 or Sol8 nuclear extract: sc-2157.

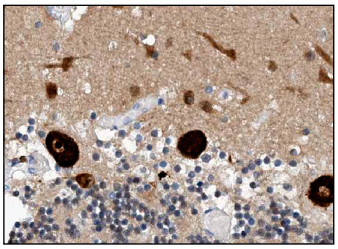
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



EF-1 α2 (D-15): sc-68481. Western blot analysis of EF-1 α2 expression in HEK293 whole cell lysate (**A**) and SK-N-MC (**B**), IMR-32 (**C**) and Sol8 (**D**) nuclear extracts and rat skeletal muscle (**E**) and mouse heart (**F**) tissue extracts.



EF-1 α2 (D-15): sc-68481. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic staining of cells in molecular layer and Purkinje cells at high magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

1. Marshall, K.D., et al. 2014. Proteomic mapping of proteins released during necrosis and apoptosis from cultured neonatal cardiac myocytes. Am. J. Physiol. Cell Physiol. 306: C639-C647.

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.