ETHE1 (B-12): sc-393869

**BACKGROUND**

ETHE1 (ethylmalonic encephalopathy 1), also known as HSCO (hepatoma substracted clone one protein), is a 254 amino acid protein belonging to the metallo-β-lactamase superfamily and glyoxalase II family. Localizing to the cytoplasm, nucleus and mitochondrial matrix, ETHE1 is ubiquitously expressed and may function in sulfide catabolism. ETHE1 binds two zinc ions per subunit and interacts directly with RELA, preventing its localization to the nucleus thus leading to suppressed p53-induced apoptosis. The gene encoding ETHE1 maps to human chromosome 19q13.31. Mutations to this gene result in ethylmalonic encephalopathy, an infantile metabolic disorder characterized by high levels of ethylmalonic acid, neurodevelopmental delay and regression, recurrent petechiae, acrocyanosis, and death within the first decade of life.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: ETHE1 (human) mapping to 19q13.31; Ethe1 (mouse) mapping to 7 A3.

**SOURCE**

ETHE1 (B-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 185-214 within an internal region of ETHE1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393869 P, (100 µg peptide in 0.5 ml PBS containing <0.1% sodium azide and 0.2% stabilizer protein).

**STORAGE**

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

**APPLICATIONS**

ETHE1 (B-12) is recommended for detection of ETHE1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for ETHE1 siRNA (h): sc-97755, ETHE1 siRNA (m): sc-144957, ETHE1 shRNA Plasmid (h): sc-97755-SH, ETHE1 shRNA Plasmid (m): sc-144957-SH, ETHE1 shRNA (h) Lentiviral Particles: sc-97755-V and ETHE1 shRNA (m) Lentiviral Particles: sc-144957-V.

Molecular Weight of ETHE1: 28 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or Jurkat whole cell lysate: sc-2204.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Hard-set Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

ETHE1 (B-12): sc-393869. Western blot analysis of ETHE1 expression in Jurkat (A), SW480 (B), HeLa (C), Hep G2 (D) and COLO 205 (E) whole cell lysates.

ETHE1 (B-12): sc-393869. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic, nuclear and nucleolar localization.

**RESEARCH USE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.