

ABCF1 (H-3): sc-377185

BACKGROUND

ABCF1 (ATP-binding cassette sub-family F member 1, TNF- α -stimulated ABC protein) is a 845 amino acid protein encoded by the human gene ABCF1. ABCF1 belongs to the ABC transporter family (EF3 subfamily) and contains two ABC transporter domains. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct sub-families (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). Unlike other members of the superfamily, this protein lacks the transmembrane domains which are characteristic of most ABC transporters. ABCF1 is believed to have a role in mRNA translation due to its interaction with eukaryotic initiation factor 2 (eIF2). It is also associated with ribosomes. ABCF1 is ubiquitously expressed and can be induced with TNF. Upon DNA damage, ABCF1 is phosphorylated by either ATM or ATR.

REFERENCES

1. Richard, M., et al. 1998. ABC50, a novel human ATP-binding cassette protein found in tumor necrosis factor- α -stimulated synoviocytes. *Genomics* 53: 137-145.
2. Klein, I., et al. 1999. An inventory of the human ABC proteins. *Biochim. Biophys. Acta* 1461: 237-262.
3. Shichijo, S., et al. 2005. ABCE1, a member of ATP-binding cassette transporter gene, encodes peptides capable of inducing HLA-A2-restricted and tumor-reactive cytotoxic T lymphocytes in colon cancer patients. *Oncol. Rep.* 13: 907-913.
4. Ota, M., et al. 2007. Two critical genes (HLA-DRB1 and ABCF1) in the HLA region are associated with the susceptibility to autoimmune pancreatitis. *Immunogenetics* 59: 45-52.
5. Chloupková, M., et al. 2007. Expression of 25 human ABC transporters in the yeast *Pichia pastoris* and characterization of the purified ABCC3 ATPase activity. *Biochemistry* 46: 7992-8003.

CHROMOSOMAL LOCATION

Genetic locus: ABCF1 (human) mapping to 6p21.33; Abcf1 (mouse) mapping to 17 B1.

SOURCE

ABCF1 (H-3) is a mouse monoclonal antibody raised against amino acids 524-658 mapping within an internal region of ABCF1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ABCF1 (H-3) is available conjugated to agarose (sc-377185 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377185 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377185 PE), fluorescein (sc-377185 FITC), Alexa Fluor® 488 (sc-377185 AF488), Alexa Fluor® 546 (sc-377185 AF546), Alexa Fluor® 594 (sc-377185 AF594) or Alexa Fluor® 647 (sc-377185 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377185 AF680) or Alexa Fluor® 790 (sc-377185 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ABCF1 (H-3) is recommended for detection of ABCF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

ABCF1 (H-3) is also recommended for detection of ABCF1 in additional species, including bovine and porcine.

Suitable for use as control antibody for ABCF1 siRNA (h): sc-95478, ABCF1 siRNA (m): sc-140760, ABCF1 shRNA Plasmid (h): sc-95478-SH, ABCF1 shRNA Plasmid (m): sc-140760-SH, ABCF1 shRNA (h) Lentiviral Particles: sc-95478-V and ABCF1 shRNA (m) Lentiviral Particles: sc-140760-V.

Molecular Weight of ABCF1: 96 kDa.

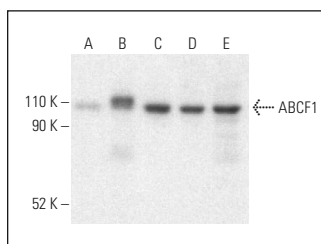
Positive Controls: HeLa whole cell lysate: sc-2200, ABCF1 (h): 293T Lysate: sc-171396 or K-562 whole cell lysate: sc-2203.

RECOMMENDED SUPPORT REAGENTS

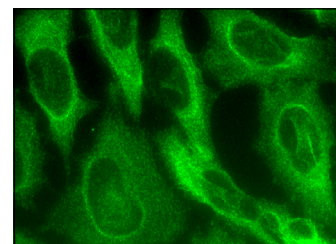
To ensure optimal results, the following support reagents are recommended:

- 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, UltraCruz® Blocking Reagent: sc-516214 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® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ABCF1 (H-3): sc-377185. Western blot analysis of ABCF1 expression in non-transfected 293T: sc-117752 (A), human ABCF1 transfected 293T: sc-171396 (B), K-562 (C), HeLa (D) and P19 (E) whole cell lysates. Detection reagent used: m-IgG κ BP-HRP: sc-525408.



ABCF1 (H-3): sc-377185. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

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.

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