

FAM213A (A-15): sc-139457

BACKGROUND

FAM213A, also known as PAMM (peroxiredoxin-like 2 activated in M-CSF stimulated monocytes) or C10orf58, is a 229 cytoplasmic amino acid protein that belongs to the peroxiredoxin-like FAM213 family and FAM213A subfamily. FAM213A plays a role in redox regulation of the cell, acts as an antioxidant, and is induced by CSF1 in peripheral blood mononuclear cells (PBMCs). Existing as two alternatively spliced isoforms, the gene encoding FAM213A maps to human chromosome 10. Spanning nearly 135 million base pairs, chromosome 10 makes up approximately 4.5% of total DNA in cells and encodes nearly 1,200 genes.

REFERENCES

1. Troelstra, C., et al. 1992. Localization of the nucleotide excision repair gene ERCC6 to human chromosome 10q11-q21. *Genomics* 12: 745-749.
2. Jabs, E.W., et al. 1994. Jackson-Weiss and Crouzon syndromes are allelic with mutations in fibroblast growth factor receptor 2. *Nat. Genet.* 8: 275-279.
3. Yu, Y., et al. 2001. Gene expression profiling in human fetal liver and identification of tissue- and developmental-stage-specific genes through compiled expression profiles and efficient cloning of full-length cDNAs. *Genome Res.* 11: 1392-1403.
4. Berger, P., et al. 2002. Molecular cell biology of Charcot-Marie-Tooth disease. *Neurogenetics* 4: 1-15.
5. Teresi, R.E., et al. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. *Am. J. Hum. Genet.* 81: 756-767.
6. Cho, M.Y., et al. 2008. First report of ovarian dysgerminoma in Cowden syndrome with germline PTEN mutation and PTEN-related 10q loss of tumor heterozygosity. *Am. J. Surg. Pathol.* 32: 1258-1264.
7. Yin, Y. and Shen, W.H. 2008. PTEN: a new guardian of the genome. *Oncogene* 27: 5443-5453.

CHROMOSOMAL LOCATION

Genetic locus: FAM213A (human) mapping to 10q23.1; 5730469M10Rik (mouse) mapping to 14 B.

SOURCE

FAM213A (A-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of FAM213A 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.

Blocking peptide available for competition studies, sc-139457 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

FAM213A (A-15) is recommended for detection of FAM213A of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

FAM213A (A-15) is also recommended for detection of FAM213A in additional species, including bovine and porcine.

Suitable for use as control antibody for FAM213A siRNA (h): sc-90705, FAM213A siRNA (m): sc-140383, FAM213A shRNA Plasmid (h): sc-90705-SH, FAM213A shRNA Plasmid (m): sc-140383-SH, FAM213A shRNA (h) Lentiviral Particles: sc-90705-V and FAM213A shRNA (m) Lentiviral Particles: sc-140383-V.

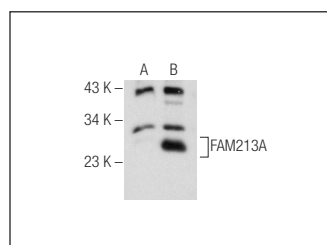
Molecular Weight of FAM213A isoforms: 25/26 kDa.

Positive Controls: FAM213A (m): 293T Lysate: sc-118039.

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.

DATA



FAM213A (A-15): sc-139457. Western blot analysis of FAM213A expression in non-transfected: sc-117752 (A) and mouse FAM213A transfected: sc-118039 (B) 293T whole cell lysates.

STORAGE

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