

FAM3B (1E7): sc-517177

BACKGROUND

FAM3B (family with sequence similarity 3, member B), also known as ORF9, C21orf11 or PANDER (pancreatic-derived factor), is a 235 amino acid secreted protein that localizes to discrete vesicular and perinuclear structures. Expressed at high levels in pancreas and at lower levels in kidney, colon, testis, prostate and small intestine, FAM3B functions as an islet-specific cytokine that promotes apoptosis and may inhibit Insulin secretion from β -cells, possibly playing a role in overall pancreatic activity. FAM3B may also function in the regulation of glycemic levels, with possible correlations to the onset of diabetes. Human FAM3B shares 78% sequence identity with its mouse counterpart, suggesting a conserved role between species. Three isoforms of FAM3B, designated A, B and C, exist due to alternative splicing events. The gene encoding FAM3B maps to human chromosome 21, which houses approximately 300 genes and comprises nearly 1.5% of the human genome.

REFERENCES

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- Cao, X., et al. 2003. Pancreatic-derived factor (FAM3B), a novel islet cytokine, induces apoptosis of Insulin-secreting β -cells. *Diabetes* 52: 2296-2303.
- Cao, X., et al. 2005. Effects of overexpression of pancreatic derived factor (FAM3B) in isolated mouse islets and Insulin-secreting β TC3 cells. *Am. J. Physiol. Endocrinol. Metab.* 289: E543-E550.
- Yang, J., et al. 2005. Structure-function studies of PANDER, an islet specific cytokine inducing cell death of Insulin-secreting β cells. *Biochemistry* 44: 11342-11352.
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- Wang, O., et al. 2008. Mechanisms of glucose-induced expression of pancreatic-derived factor in pancreatic β -cells. *Endocrinology* 149: 672-680.
- Robert-Cooperman, C.E., et al. 2010. Targeted disruption of pancreatic-derived factor (PANDER, FAM3B) impairs pancreatic β -cell function. *Diabetes* 59: 2209-2218.

CHROMOSOMAL LOCATION

Genetic locus: FAM3B (human) mapping to 21q22.3.

SOURCE

FAM3B (1E7) is a mouse monoclonal antibody raised against amino acids 1-235 representing full length FAM3B of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

FAM3B (1E7) is recommended for detection of FAM3B of human origin by Western Blotting (starting dilution 1:200, 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), 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).

Suitable for use as control antibody for FAM3B siRNA (h): sc-91522, FAM3B shRNA Plasmid (h): sc-91522-SH and FAM3B shRNA (h) Lentiviral Particles: sc-91522-V.

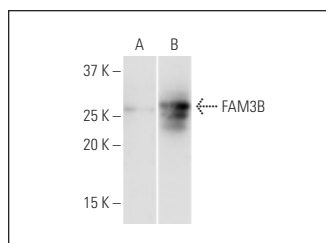
Molecular Weight of FAM3B: 26 kDa.

Positive Controls: human kidney extract: sc-363764 or FAM3B transfected 293T whole cell lysate.

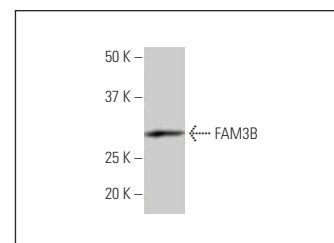
RECOMMENDED SUPPORT REAGENTS

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® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



FAM3B (1E7): sc-517177. Western blot analysis of FAM3B expression in non-transfected (A) and FAM3B transfected (B) 293T whole cell lysates.



FAM3B (1E7): sc-517177. Western blot analysis of FAM3B expression in human kidney tissue extract.

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 for detailed protocols and support products.