FAM25D/E (S-17): sc-246703



The Power to Question

BACKGROUND

FAM25D and FAM25E are 175 amino acid proteins that are both encoded by a genes that maps to human chromosome 10, which contains over 800 genes and 135 million nucleotides and makes up nearly 4.5% of the human genome. PTEN is an important tumor suppressor gene located on chromosome 10 and, when defective, causes a genetic predisposition to cancer development known as Cowden syndrome. The chromosome 10 encoded gene ERCC6 is important for DNA repair and is linked to Cockayne syndrome which is characterized by extreme photosensitivity and premature aging. Tetrahydrobiopterin deficiency and a number of syndromes involving defective skull and facial bone fusion are also linked to chromosome 10. As with most trisomies, trisomy 10 is rare and is deleterious.

REFERENCES

- Fryns, J.P., Bulcke, J., Verdu, P., Carton, H., Kleczkowska, A. and Van den Berghe, H. 1991. Apparent late-onset Cockayne syndrome and interstitial deletion of the long arm of chromosome 10 (del(10)(q11.23q21.2)). Am. J. Med. Genet. 40: 343-344.
- Thöny, B., Heizmann, C.W. and Mattei, M.G. 1994. Chromosomal location
 of two human genes encoding tetrahydrobiopterin-metabolizing enzymes:
 6-pyruvoyl-tetrahydropterin synthase maps to 11q22.3-q23.3, and pterin-4
 α-carbinolamine dehydratase maps to 10q22. Genomics 19: 365-368.
- Horibata, K., Iwamoto, Y., Kuraoka, I., Jaspers, N.G., Kurimasa, A., Oshimura, M., Ichihashi, M. and Tanaka, K. 2004. Complete absence of Cockayne syndrome group B gene product gives rise to UV-sensitive syndrome but not Cockayne syndrome. Proc. Natl. Acad. Sci. USA 101: 15410-15415.
- Teresi, R.E., Zbuk, K.M., Pezzolesi, M.G., Waite, K.A. and Eng, C. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. Am. J. Hum. Genet. 81: 756-767.
- Cho, M.Y., Kim, H.S., Eng, C., Kim, D.S., Kang, S.J., Eom, M., Yi, S.Y. and Bronner, M.P. 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.
- Blumenthal, G.M. and Dennis, P.A. 2008. PTEN hamartoma tumor syndromes. Eur. J. Hum. Genet. 16: 1289-1300.
- Utine, G.E., Alanay, Y., Atka, D., Boduro lu, K., Alika ifo lu, M. and Tuncbilek, E. 2008. Kabuki syndrome and trisomy 10p. Genet. Couns. 19: 291-300.
- 8. Yin, Y. and Shen, W.H. 2008. PTEN: a new guardian of the genome. Oncogene 27: 5443-5453.

CHROMOSOMAL LOCATION

Genetic locus: FAM25D/FAM25E (human) mapping to 10q11.22.

SOURCE

FAM25D/E (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FAM25D/E of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-246703 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FAM25D/E (S-17) is recommended for detection of FAM25D and FAM25E of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other FAM25 family members.

Molecular Weight of FAM25D/E: 18 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

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