Revision 3

#15171 Store at -20C

FAM3C (D1S2D) XP® Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IHC-P, IF-IC, FC-FP	H	Endogenous	25	Rabbit IgG	#Q92520	10447

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunohistochemistry (Paraffin)	1:300
Immunofluorescence (Immunocytochemistry)	1:400
Flow Cytometry (Fixed/Permeabilized)	1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

FAM3C (D1S2D) XP® Rabbit mAb recognizes endogenous levels of total FAM3C protein. Based on the sequence of the immunogenic peptide, the antibody is not expected to cross-react with other FAM3 family members.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly169 of human FAM3C protein.

Background

FAM3C, also known as ILEI (interleukin-like epithelial-to-mesenchymal transition [EMT] inducer), is a cytokine-like protein and member of the FAM3 family. FAM3C plays an important role in EMT and metastasis during cancer progression in human and mouse cells, and is highly expressed in human cancer (1,2). In colorectal cancer, researchers have indicated that FAM3C is a marker for EMT and tumor progression, and that high expression of FAM3C is predictive of poor prognosis (3). While EMT induction by FAM3C can be independent of TGF-beta, research studies have also shown TGF-beta-dependent regulation of FAM3C expression at the translational level in mouse and human cells (4,5).

FAM3C has also been linked to regulation of osteoblast differentiation (6), and to accumulation of amyloid beta plaques in Alzheimer's disease (7). FAM3C exists in monomeric and in homodimeric form, and research shows that FAM3C homodimers contain its EMT-inducing and tumor promoting activity (8).

Background References

1. Waerner, T. et al. (2006) *Cancer Cell* 10, 227-39.
2. Lahsnig, C. et al. (2009) *Oncogene* 28, 638-50.
3. Gao, Z.H. et al. (2014) *Histopathology* 65, 527-38.
4. Chaudhury, A. et al. (2010) *Nat Cell Biol* 12, 286-93.
5. Song, Q. et al. (2014) *Tumour Biol* 35, 1377-82.
6. Bendre, A. et al. *Differentiation* 93, 50-57.
7. Liu, L. et al. (2016) *Neuroscience* 330, 236-46.
8. Kral, M. et al. (2017) *FEBS J* 284, 3484-3505.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)
IF-IC: Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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