Revision 4

#8479 Store at -20C

GDF15/MIC1 (D2A3) Rabbit mAb

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	35, 13	Rabbit IgG	#Q99988	9518

Product Usage Information

Application	Dilution
Western Blotting	1:1000

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

GDF15/MIC1 (D2A3) Rabbit mAb recognizes endogenous levels of total GDF15/MIC1 protein, including the processed mature form.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human GDF15/MIC1 protein.

Background

Macrophage inhibitory cytokine-1 (Mic-1), also termed GDF15 (1), PTGF-β (2), PLAB (3), PDF (4), and NAG-1 (5), is a divergent member of the transforming growth factor-β (TGF-β) superfamily (6). Like other family members, Mic-1 is synthesized as an inactive precursor that undergoes proteolytic processing involving removal of an N-terminal hydrophobic signal sequence followed by cleavage at a conserved RXXR site, generating an active C-terminal domain that is secreted as a dimeric protein. Mic-1 is highly expressed in the placenta and is also dramatically increased by cellular stress, acute injury, inflammation, and cancer. In the brain, Mic-1 is found in the choroid plexus and is secreted into the cerebrospinal fluid (7). It is also a transcriptional target of the p53 tumor suppressor protein and may serve as a biomarker for p53 activity (8,9). During tumor progression, Mic-1 has various effects on apoptosis, differentiation, angiogenesis, and metastasis, and may also contribute to weight loss during cancer (10,11).

Background References

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3. Hromas, R. et al. (1997) *Biochim Biophys Acta* 1354, 40-4.
4. Paralkar, V.M. et al. (1998) *J Biol Chem* 273, 13760-7.
5. Baek, S.J. et al. (2001) *J Biol Chem* 276, 33384-92.
6. Bootcov, M.R. et al. (1997) *Proc Natl Acad Sci USA* 94, 11514-9.
7. Strelau, J. et al. (2000) *J Neural Transm Suppl*, 273-6.
8. Kannan, K. et al. (2000) *FEBS Lett* 470, 77-82.
9. Yang, H. et al. (2003) *Mol Cancer Ther* 2, 1023-9.
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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

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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