Revision 8

#8198 Store at -20C

Met (D1C2) 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, W-S, IP, IHC-Bond, IHC-P, IF-IC, FC-FP	H	Endogenous	140, 170	Rabbit IgG	#P08581	4233

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Simple Western™	1:50 - 1:250
Immunoprecipitation	1:50
IHC Leica Bond	1:150 - 1:600
Immunohistochemistry (Paraffin)	1:150 - 1:600
Immunofluorescence (Immunocytochemistry)	1:1500 - 1:3000
Flow Cytometry (Fixed/Permeabilized)	1:200 - 1:800

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.

For a carrier-free (BSA and azide free) version of this product see product #83733.

Specificity / Sensitivity

Met (D1C2) XP® Rabbit mAb recognizes endogenous levels of total Met protein.

Source / Purification

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

Background

Met, a high affinity tyrosine kinase receptor for hepatocyte growth factor (HGF, also known as scatter factor) is a disulfide-linked heterodimer made of 45 kDa α- and 145 kDa β-subunits (1,2). The α-subunit and the amino-terminal region of the β-subunit form the extracellular domain. The remainder of the β-chain spans the plasma membrane and contains a cytoplasmic region with tyrosine kinase activity. Interaction of Met with HGF results in autophosphorylation at multiple tyrosines, which recruit several downstream signaling components, including Gab1, c-Cbl, and PI3 kinase (3). These fundamental events are important for all of the biological functions involving Met kinase activity. The addition of a phosphate at cytoplasmic Tyr1003 is essential for Met protein ubiquitination and degradation (4). Phosphorylation at Tyr1234/1235 in the Met kinase domain is critical for kinase activation. Phosphorylation at Tyr1349 in the Met cytoplasmic domain provides a direct binding site for Gab1 (5). Research studies have shown that altered Met levels and/or tyrosine kinase activities are found in several types of tumors, including renal, colon, and breast. Thus, investigators have concluded that Met is an attractive potential cancer therapeutic and diagnostic target (6,7).

Background References

1. Cooper, C.S. et al. (1984) *Nature* 311, 29-33.
2. Bottaro, D.P. et al. (1991) *Science* 251, 802-4.
3. Bardelli, A. et al. (1997) *Oncogene* 15, 3103-11.
4. Taher, T.E. et al. (2002) *J Immunol* 169, 3793-800.
5. Schaeper, U. et al. (2000) *J Cell Biol* 149, 1419-32.
6. Eder, J.P. et al. (2009) *Clin Cancer Res* 15, 2207-14.
7. Sattler, M. and Salgia, R. (2009) *Update Cancer Ther* 3, 109-118.

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **W-S:** Simple Western™ **IP:** Immunoprecipitation **IHC-Bond:** IHC Leica Bond
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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Limited Uses