Store at -20°C

PhosphoPlus® Met (Tyr1234/Tyr1235) Antibody Duet

#8218

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New 05/18

Entrez-Gene ID #4233
UniProt ID #P08581

For Research Use Only. Not For Use In Diagnostic Procedures.

Products Included	Product #	Quantity	Mol. Wt.	Isotype
P-Met (Y1234/1235) (D26) XP® Rabbit mAb	3077	100 µl	145 kDa	Rabbit
Met (D1C2) XP® Rabbit mAb	8198	100 µl	140, 170 kDa	Rabbit

See www.cellsignal.com for individual component applications, species cross-reactivity, dilutions and additional application protocols.

Description: PhosphoPlus® Duets from Cell Signaling Technology (CST) provide a means to assess protein activation status. Each Duet contains an activation-state and total protein antibody to your target of interest. These antibodies have been selected from CST's product offering based upon superior performance in specified applications.

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).

Specificity/Sensitivity: Phospho-Met (Tyr1234/1235) (D26) XP® Rabbit mAb detects endogenous levels of Met only when phosphorylated at Tyr1234/1235. This antibody may cross-react with overexpressed tyrosine phosphorylated Src proteins in Western blot. The use of this antibody for IF and F applications are only recommended for cells over expressing phospho-Met (Y1234/1235). Met (D1C2) XP® Rabbit mAb recognizes endogenous levels of total Met protein.

Source/Purification: Monoclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr1234/1235 of human Met or a synthetic peptide corresponding to residues near the carboxy terminus of human Met protein.

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.*

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.

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Applications: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide **Species Cross-Reactivity:** **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **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 **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.