#3126 Store at -20°C

Phospho-Met (Tyr1234/1235) Antibody

Cell Signaling TECHNOLOGY®

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

Entrez-Gene ID #4233
Swiss-Prot Acc. #P08581

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M, R, Mk	145 kDa	Rabbit**

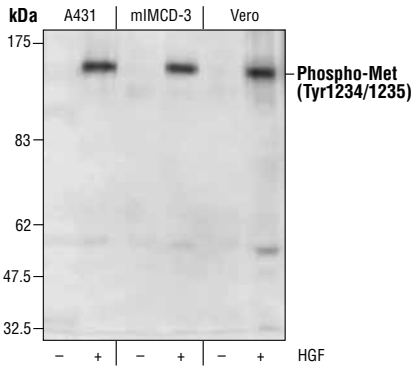
Background: Met, a high affinity tyrosine kinase receptor for hepatocyte growth factor (HGF, also known as scatter factor) is a disulfide-linked heterodimer made of 45 kDa α- and 145 kDa β-subunits (1,2). The α-subunit and the amino-terminal region of the β-subunit form the extracellular domain. The 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). Altered Met levels and/or tyrosine kinase activities are found in several types of tumors, including renal, colon, and breast. Thus, Met is an attractive cancer therapeutic and diagnostic target (6,7).

Specificity/Sensitivity: Phospho-Met (Tyr1234/1235) Antibody detects endogenous levels of Met only when phosphorylated at tyrosine 1234/1235. This antibody cross-reacts with activated Ron, EGF, PDGF, insulin and FGF receptors.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr1234/1235 of human Met. Antibodies are purified by protein A and peptide affinity chromatography.

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.



Western blot analysis of extracts from mIMCD-3, A431 and Vero cells, untreated or HGF-stimulated (40 ng/ml for 5 minutes) using Phospho-Met (Tyr1234/1235) Antibody.

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

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western Blotting	1:1000
Immunoprecipitation	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **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.