#1645 Store at -20°C

Phospho-Met (Tyr1234/1235) Blocking Peptide

☑ 100 µg

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rev. 06/12/17

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

Description: This peptide is used to block Phospho-Met (Tyr1234/1235) (D26) Rabbit mAb #3077 reactivity in peptide dot blot protocols.

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).

Quality Control: The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry. The peptide blocks Phospho-Met (Tyr1234/1235) (D26) Rabbit mAb #3077 signal in peptide dot blot.

Directions for Use: Use as a blocking reagent to evaluate the specificity of antibody reactivity in peptide dot blot protocols. Recommended antibody dilutions can be found on the relevant product data sheet.

Storage: Supplied in 20 mM potassium phosphate (pH 7.0), 50 mM NaCl, 0.1 mM EDTA, 1 mg/ml BSA, 5% glycerol, and 1% DMSO. Store at –20°C.

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.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E**—ELISA **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**—zebra fish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.