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## Phospho-Met (Tyr1234/1235) (D26) XP<sup>®</sup> Rabbit mAb (PE Conjugate)

For Research Use Only. Not for Use in Diagnostic Procedures.

<b>Applications:</b> FC-FP	<b>Reactivity:</b> H M R	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #P08581	<b>Entrez-Gene Id:</b> 4233
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### Product Usage Information

#### Application

Flow Cytometry (Fixed/Permeabilized)

#### Dilution

1:50

### Storage

Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibodies. Protect from light. Do not freeze.

### Specificity/Sensitivity

Phospho-Met (Tyr1234/1235) (D26) XP<sup>®</sup> Rabbit mAb (PE Conjugate) detects overexpressed levels of Met only when phosphorylated at Tyr1234/1235.

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr1234/1235 of human Met.

### Description

This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-Met (Tyr1234/1235) (D26) XP<sup>®</sup> Rabbit mAb #3077.

### 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  $\alpha$ - and 145 kDa  $\beta$ -subunits (1,2). The  $\alpha$ -subunit and the amino-terminal region of the  $\beta$ -subunit form the extracellular domain. The remainder of the  $\beta$ -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).

### Applications Key

**FC-FP:** Flow Cytometry (Fixed/Permeabilized)

### Cross-Reactivity Key

**H:** Human **M:** Mouse **R:** Rat

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