Phospho-Met (Tyr1234/1235) (D26) XP ${ }^{\circledR}$ Rabbit mAb (PE Conjugate)

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

| Applications: | Reactivity: | Sensitivity: | Source/lsotype: | UniProt ID: |
| :---: | :---: | :---: | :---: | :---: |
| FC-FP | H M R | Endogenous | Rabbit | EPO8581 |

## Product Usage <br> Information

Storage
Specificity / Sensitivity
Source / Purification

Product Description

## Background

## Background References

| Application | Dilution |
| :--- | :--- |
| Flow Cytometry (Fixed/Permeabilized) | $1: 50$ |

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

Phospho-Met (Tyr1234/1235) (D26) XP ${ }^{\circledR}$ Rabbit mAb (PE Conjugate) detects overexpressed levels of Met only when phosphorylated at Tyr1234/1235.

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

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 crossreactivity as the unconjugated Phospho-Met (Tyr1234/1235) (D26) XP ${ }^{\circledR}$ Rabbit mAb \#3077.

Met, a high affinity tyrosine kinase receptor for hepatocyte growth factor (HGF, also known as scatter factor) is a disulfide-linked heterodimer made of $45 \mathrm{kDa} \alpha$ - and $145 \mathrm{kDa} \beta$-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 $(6,7)$.

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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.
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7. Sattler, M. and Salgia, R. (2009) Update Cancer Ther 3, 109-118.

## Species Reactivity

## Applications Key

Cross-Reactivity Key

## Trademarks and Patents

Species reactivity is determined by testing in at least one approved application (e.g., western blot).
FC-FP: Flow Cytometry (Fixed/Permeabilized)
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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