Store at 4°C

#8118

SignalSlide® Phospho-Met (Tyr1234/1235) IHC Controls

1 Pack
(5 slides)

Cell Signaling TECHNOLOGY®

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

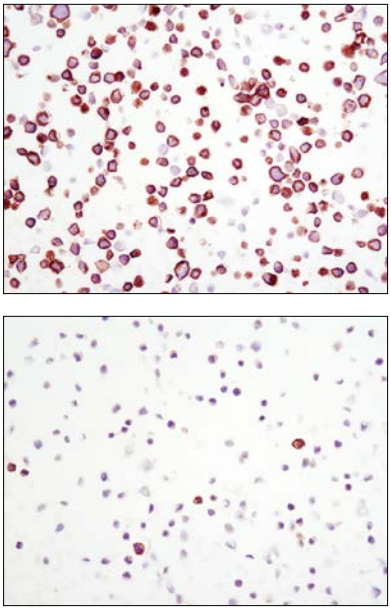
rev. 10/17/19

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

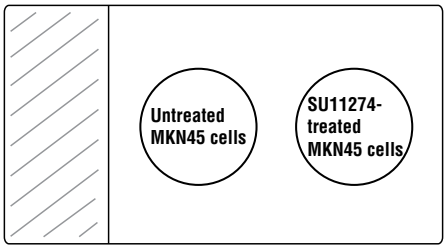
Description: Each control slide contains formalin fixed, paraffin-embedded MKN45 cells, both untreated and treated with the c-Met inhibitor SU11274, that serve as a control for Phospho-Met (Tyr1234/1235) immunostaining. Western blot analysis was performed on extracts derived from the same cells to verify the efficacy of the SU11274 treatment.

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 auto-phosphorylation 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).

Applications: These slides are intended for use in immunohistochemical assays. Please see the Companion Products for a list of products that can be used with these slides.



Immunohistochemical analysis of paraffin-embedded MKN45 cell pellets, control (left) or SU11274-treated (right), using Phospho-Met (Tyr1234/1235) (D26) XP® Rabbit mAb #3077.



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

Storage: Store at 4° C.

Optimal staining is achieved if slides are stained following CST's standard IHC protocols and are used within 8 weeks of assay date; however, signals may persist beyond two months.

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.

Background References:

(1) Cooper, C.S. et al. *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-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 **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% sequence homology.