c-Met ABfinity™ Recombinant Rabbit Monoclonal Antibody - Purified

REF Catalog no. 700261

(See product label for lot information)

Clone/PAD: 22H22L13
Isotype: IgG
Gene ID: 4233
Protein Acc. no.: P08581
Qty: 100 µg
Volume: 200 µl
Concentration: 0.5 mg/ml

Formulation
PBS + 0.09% azide

Immunogen
A peptide corresponding to amino acids 1379-1390 of P08581.

Immunogen sequence
VDTRPASFWETS

Reactivity
This antibody reacts with human c-Met. Based on sequence identity and similarity, reactivity to primates is expected.

Storage
2-8°C for up to 1 mo, -20°C for long term storage. Avoid repeated freezing and thawing.

Expiration Date
Expires one year from date of receipt when stored as instructed.

Validated Applications:

	Species	Test Material	Concentration
Western Blotting	human	A549	1-2 µg/ml
Immunofluorescence	human	A549	4-6 µg/ml
Sandwich ELISA	detector		1-5 µg/ml

Background
The c-Met protein is a receptor tyrosine kinase encoded by the c-Met proto-oncogene. c-Met, also known as HGF receptor or SF receptor, is activated by hepatocyte growth factor (HGF) or scatter factor (SF), and is composed of alpha and beta subunits linked by disulfide bonds. The alpha subunit of c-Met is extracellular and heavily glycosylated; the beta subunit contains an extracellular portion involved in ligand binding, a transmembrane segment, and a cytoplasmic tyrosine kinase domain (3-4). The truncated cytoplasmic region of c-Met has constitutive kinase activity and is oncogenic, but requires the first 39 amino acids of the juxtamembrane domain and the regulatory tyrosine in the catalytic domain to enact its transforming potential (5). Activation of c-Met signaling has been implicated in tumor cell angiogenesis, proliferation, enhanced cell motility, and metastasis. Phosphorylation of key adhesion proteins, including paxillin, focal adhesion kinase, and PYK2, has been observed in response to c-Met stimulation in lung cancer cells (6). In the highly metastatic KM12SM colorectal carcinoma cell line, activation of c-Met leads to increased survival and growth under anchorage-independent conditions, increased cell migration, and elevated levels of Tcf target genes (7). Dysregulated c-Met expression has been detected at both protein and mRNA levels in a variety of human carcinomas and sarcomas. Up to a 2.5-fold increase in mRNA expression has been reported in colorectal tumor tissues (8, 12), and upregulation of the c-Met protein in association with increasingly malignant behavior has been described in prostate cancer (9), cutaneous malignant melanoma (10), and breast cancer (11). Two recent studies using clone 3D4 for immunohistochemistry in lymph node-negative breast carcinoma tissues demonstrated that high levels of c-Met expression is associated with poor patient clinical outcome with 20-40 years of follow-up (1-2). Further, antibodies against the intracellular but not the extracellular domain of c-Met were prognostic, suggesting that overexpression of the cytoplasmic tail of c-Met may play an important role in breast cancer progression (1).

References

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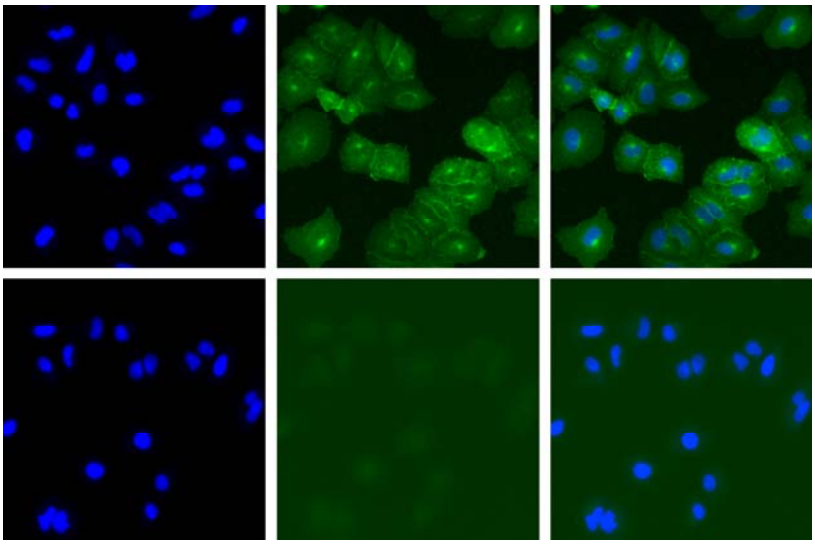
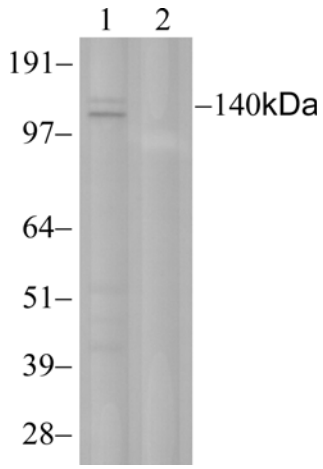


Immunocytochemistry of A549 cells labeled with rabbit anti-c-Met (Cat. No. 700261).

A549 cells were labeled with rabbit anti-c-Met (5 µg/ml) (top panels) or in the presence of peptide used as immunogen (bottom panels). Alexa Fluor® 488 goat anti-rabbit (Cat. No. A11008) at 1:1000 was used as secondary antibody. Hoechst only (left), c-Met (AF488) signal only (middle), and composite image (right).



Western blot of A549 lysates labeled with rabbit anti-c-Met (Cat. No. 700261).

Rabbit anti-c-Met (1 µg/mL) was used to label c-Met in A549 lysates (lane 1). Pre-incubation with the peptide used for immunization resulted in loss of signal (lane 2).