Anti-Met (C-Met) Antibody [SJ19-05]

ET1606-45

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IF-Tissue, IHC-P
Molecular Wt:	Predicted band size: 156 kDa
Clone number:	SJ19-05

Description: c-Met, also called tyrosine-protein kinase Met or hepatocyte growth factor receptor (HGFR), is a protein that in humans is encoded by the MET gene. The protein possesses tyrosine kinase activity. The primary single chain precursor protein is post-translationally cleaved to produce the alpha and beta subunits, which are disulfide linked to form the mature receptor. MET is a single pass tyrosine kinase receptor essential for embryonic development, organogenesis and wound healing. Hepatocyte growth factor/Scatter Factor (HGF/SF) and its splicing isoform (NK1, NK2) are the only known ligands of the MET receptor. MET is normally expressed by cells of epithelial origin, while expression of HGF/SF is restricted to cells of mesenchymal origin. When HGF/SF binds its cognate receptor MET it induces its dimerization through a not yet completely understood mechanism leading to its activation. Abnormal MET activation in cancer correlates with poor prognosis, where aberrantly active MET triggers tumor growth, formation of new blood vessels (angiogenesis) that supply the tumor with nutrients, and cancer spread to other organs (metastasis). MET is deregulated in many types of human malignancies, including cancers of kidney, liver, stomach, breast, and brain. Normally, only stem cells and progenitor cells express MET, which allows these cells to grow invasively in order to generate new tissues in an embryo or regenerate damaged tissues in an adult. However, cancer stem cells are thought to hijack the ability of normal stem cells to express MET, and thus become the cause of cancer persistence and spread to other sites in the body. Both the overexpression of Met/HGFR, as well as its autocrine activation by co-expression of its hepatocyte growth factor ligand, have been implicated in oncogenesis. Various mutations in the MET gene are associated with papillary renal carcinoma.

Immunogen: Synthetic peptide within N-terminal human Met (Extracellular).

Positive control: Hela cell lysate, HepG2 cell lysate, Hela, human tonsil tissue, human lung carcinoma tissue, human liver carcinoma tissue, human breast carcinoma tissue.

Subcellular location: Membrane, Secreted.

Database links: SwissProt: P08581 Human

Recommended Dilutions:

WB	1:1,000-1:5,000
IF-Cell	1:50-1:200
IF-Tissue	1:50-1:200
IHC-P	1:500-1:2,000

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

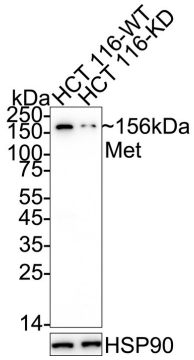

Fig1: Western blot analysis of Met (C-Met) on different lysates with Rabbit anti-Met (C-Met) antibody (ET1606-45) at 1/1,000 dilution.

Lane 1: HCT 116-si NT cell lysate
Lane 2: HCT 116-si Met (C-Met) cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 156 kDa
Observed band size: 156 kDa

Exposure time: 2 minutes; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1606-45) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

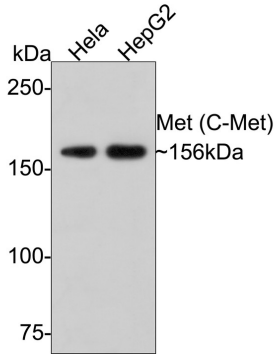

Fig2: Western blot analysis of Met (C-Met) on different lysates with Rabbit anti-Met (C-Met) antibody (ET1606-45) at 1/500 dilution.

Lane 1: Hela cell lysate
Lane 2: HepG2 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 156 kDa
Observed band size: 156 kDa

Exposure time: 2 minutes;

6% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1606-45) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

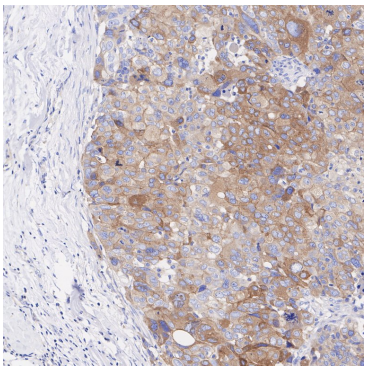

Fig3: Immunohistochemical analysis of paraffin-embedded human ovary carcinoma tissue with Rabbit anti-Met (C-Met) antibody (ET1606-45) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1606-45) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

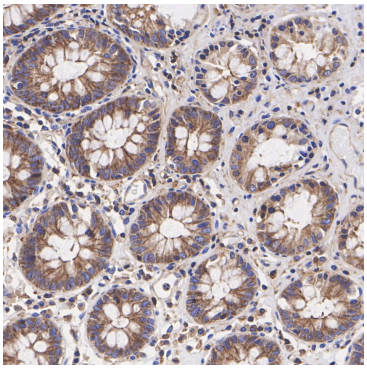

Fig4: Immunohistochemical analysis of paraffin-embedded human colon tissue with Rabbit anti-Met (C-Met) antibody (ET1606-45) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1606-45) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

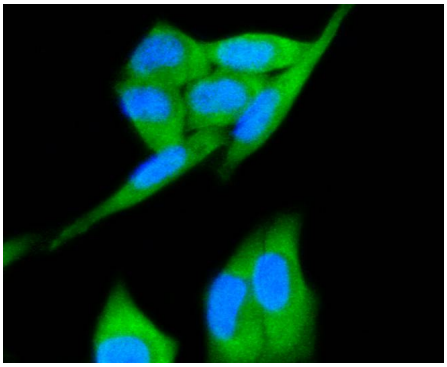

Fig5: ICC staining of Met (C-Met) in Hela cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (ET1606-45, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Jia Y et al. c-MET inhibition enhances the response of the colorectal cancer cells to irradiation in vitro and in vivo. Oncol Lett 11:2879-2885 (2016).
2. Matsumoto Y et al. A phase II study of erlotinib monotherapy in pre-treated non-small cell lung cancer without EGFR gene mutation who have never/light smoking history: re-evaluation of EGFR gene status (NEJ006/TCOG0903). Lung Cancer 86:195-200 (2014).