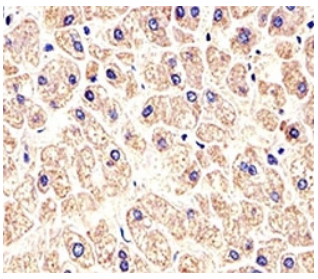
MET Antibody (HGFR) [clone 4AT44] (F40179)

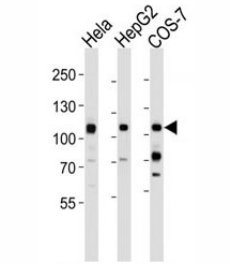
Catalog No.	Formulation	Size
F40179-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F40179-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

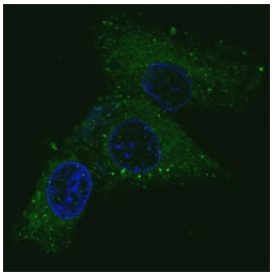
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	4AT44
Purity	Purified
UniProt	P08581
Applications	Western Blot : 1:1000 Immunofluorescence : 1:100 IHC (Paraffin) : 1:25-1:100
Limitations	This MET antibody (HGFR) is available for research use only.



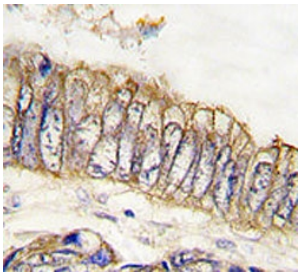
Immunohistochemical analysis of paraffin-embedded human liver using MET antibody at 1:25 dilution.



Western blot analysis of lysate from HeLa, HepG2, COS-7 cell line (left to right) using MET antibody at 1:1000 for each lane. Predicted molecular weight ~156 kDa.



Fluorescent confocal image of HepG2 cells stained with MET antibody. MET is localized to the cytoplasm.



IHC analysis of FFPE human colon carcinoma tissue stained with MET antibody

Description

The MET antibody is designed for the detection of the hepatocyte growth factor receptor, also called MET or HGFR, a receptor tyrosine kinase that plays a central role in epithelial development, tissue repair, and oncogenesis. The MET protein functions as a high affinity receptor for hepatocyte growth factor, also known as scatter factor, and upon ligand binding it undergoes dimerization and autophosphorylation. This initiates a cascade of downstream signaling events that control proliferation, motility, invasion, and survival. Because of its broad biological effects, MET signaling is sometimes referred to as invasive growth, a program that coordinates cell cycle progression with changes in adhesion and cytoskeletal remodeling.

Structurally, MET is synthesized as a single chain precursor that is cleaved into an extracellular alpha chain and a transmembrane beta chain. The extracellular region contains a sema domain that mediates ligand binding, followed by a PSI domain and four IPT domains that help stabilize receptor interactions. The intracellular portion contains a tyrosine kinase catalytic domain with key autophosphorylation sites that recruit adaptor proteins such as GRB2, GAB1, and PI3K. Through these interactions, the MET receptor activates multiple pathways including PI3K Akt, RAS MAPK, STAT3, and NF kappa B, thereby linking growth factor stimulation to gene expression, metabolism, and cytoskeletal dynamics.

Aberrant activation of MET is strongly implicated in cancer. Gene amplification, exon 14 skipping mutations, or protein overexpression can drive tumor cell proliferation and invasive behavior. MET dysregulation is particularly important in non small cell lung cancer, gastric carcinoma, renal cell carcinoma, and glioblastoma. In these contexts, MET activation promotes epithelial mesenchymal transition, enhances metastatic spread, and contributes to therapy resistance. Because of this, MET inhibitors including small molecules and monoclonal antibodies are under clinical development and some have received regulatory approval. Monitoring MET expression and activation state is therefore essential for both basic research and translational oncology.

Researchers use the MET antibody in western blotting to quantify receptor abundance and to evaluate phosphorylation at critical tyrosine residues. In immunohistochemistry, the reagent is applied to map tissue distribution in normal epithelia and tumor samples, often revealing membranous or cytoplasmic staining patterns that correlate with invasive potential. The MET antibody is also employed in immunoprecipitation assays to isolate receptor complexes and to study coupling with downstream signaling proteins such as SHC and SRC family kinases. In addition, flow cytometry and immunofluorescence applications allow the analysis of MET expression at the single cell level, enabling the identification of subpopulations within heterogeneous tissues. Synonym terms such as hepatocyte growth factor receptor antibody and HGFR antibody can also be used to broaden search visibility, but the primary keyword MET antibody ensures consistent product identification.

By providing specific and reproducible detection across multiple techniques, the MET antibody supports a wide range of scientific investigations. These include studies on embryonic development, wound healing, cancer biology, and therapeutic response to MET targeted agents. NSJ Bioreagents validates the MET antibody for reliability in research settings, ensuring that investigators have a dependable reagent for exploring receptor biology, signaling mechanisms, and disease relevance. With a well characterized MET antibody, scientists are able to dissect how hepatocyte growth factor receptor signaling contributes to both physiological processes and pathological progression.

Application Notes

Titration of the MET antibody (HGFR) may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This MET antibody was produced from mice immunized with purified recombinant protein encoding the catalytic domain of human MET/HGFR.

Storage

Aliquot the MET antibody (HGFR) and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.