HRP Conjugated Anti-beta Tubulin Antibody [1-B11]

EM1701-59

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat, Zebrafish
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 50 kDa
Clone number:	1-B11

Description: Tubulin is one of several members of a small family of globular proteins. The most common members of the tubulin family are α-tubulin and β-tubulin. The beta-tubulin (relative molecular weight about 50 kDa) is counterpart of alpha-tubulin in tubulin heterodimer, it is coded by multiple tubulin genes and it is also posttranslationally modified. Heterogeneity of subunit is concentrated in C-terminal structural domain. Beta-Tubulin may have bound GTP or GDP. Under certain conditions β-tubulin can hydrolyze its bound GTP to GDP plus Pi, release the Pi, and exchange the GDP for GTP.

Conjugate: HRP-conjugated

Immunogen: Synthetic peptide within Human Beta tubulin aa 46-95 / 444.

Positive control: K-562 cell lysate, Jurkat cell lysate, HeLa cell lysate, NIH/3T3 cell lysate, RAW264.7 cell lysate, C6 cell lysate, human colon cancer tissue, human kidney tissue.

Subcellular location: Cytoplasm, Cytoskeleton.

Database links: SwissProt: P07437 Human | P99024 Mouse | P69897 Rat

Recommended Dilutions:

WB	1:2,000-1:5,000
IHC-P	1:500-1:2,000

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% Glycerol.

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

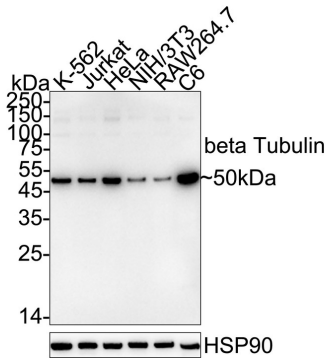

Fig1: Western blot analysis of beta Tubulin on different lysates with Mouse anti-beta Tubulin antibody (EM1701-59) at 1/2,000 dilution.

Lane 1: K-562 cell lysate
Lane 2: Jurkat cell lysate
Lane 3: HeLa cell lysate
Lane 4: NIH/3T3 cell lysate
Lane 5: RAW264.7 cell lysate
Lane 6: C6 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 50 kDa
Observed band size: 50 kDa

Exposure time: 20 seconds; 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 (EM1701-59) at 1/2,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours.

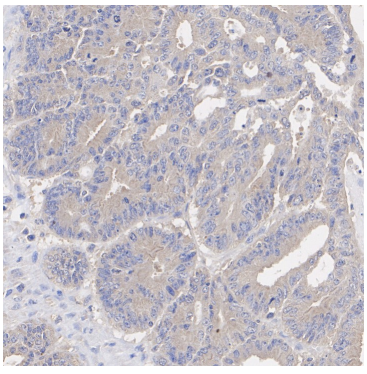

Fig2: Immunohistochemical analysis of paraffin-embedded human colon cancer tissue with Mouse anti-beta Tubulin antibody (EM1701-59, HRP) at 1/2,000 dilution.

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 (EM1701-59, HRP) at 1/2,000 dilution for 1 hour at room temperature. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

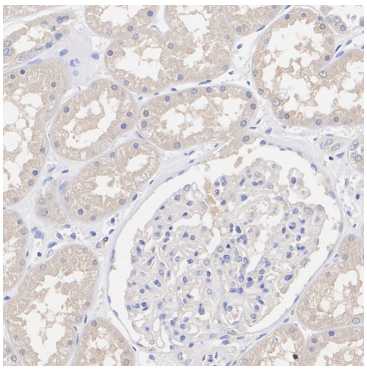

Fig3: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Mouse anti-beta Tubulin antibody (EM1701-59, HRP) at 1/500 dilution.

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 (EM1701-59, HRP) at 1/500 dilution for 1 hour at room temperature. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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

Background References

1. Tantry MSA et al. Insights on the Role of alpha- and beta-Tubulin Isotypes in Early Brain Development. Mol Neurobiol. 2023 Jul
2. Nicot S et al. A family of carboxypeptidases catalyzing alpha- and beta-tubulin tail processing and deglutamylation. Sci Adv. 2023 Sep