

Recombinant MASH1 Monoclonal Antibody

catalog number: **AN301998L**

Note: Centrifuge before opening to ensure complete recovery of vial contents.

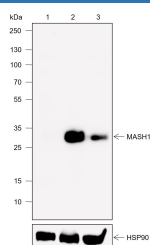
Description

Reactivity	Human;
Immunogen	Peptide. This information is proprietary to PTMab
Host	Rabbit
Isotype	IgG, κ
Clone	A718
Purification	Protein A purified
Buffer	PBS, 50% glycerol, 0.05% Proclin 300, 0.05% protein protectant.

Applications Recommended Dilution

WB	1:1000
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Data



Western Blot with MASH1 Monoclonal Antibody at dilution of 1:1000. Lane 1: U-2 OS (negative control), Lane 2: SK-N-BE (2), Lane 3: IMR-32

Observed-MW:30 kDa

Calculated-MW:25 kDa

Preparation & Storage

Storage	Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.
Shipping	Ice bag

Background

MASH1, also known as achaete-scute homolog 1 (ASCL1), is a basic helix-loop-helix (BHLH) transcription factor which plays an essential role in the differentiation of neuroendocrine cells and neural tissues. MASH1 directly binds the E-box motif (5'-CANNTG-3') on promoters, with dimerization with other BHLH proteins required for efficient DNA binding. Acting as a pioneer transcription factor, MASH1 also accesses closed chromatin, allowing other factors to promote transcription of neuronal genes and activate neural pathways. Research studies have shown that knockdown of the MASH1 gene leads to inhibition of growth and induction of apoptosis in SCLC cells in vitro. Additionally, MASH1 is overexpressed in both classic SCLC as well as NSCLC with neuroendocrine features, suggesting its role in the pathogenesis of those malignancies. MASH1 plays a crucial role in promoting SCLC carcinogenesis by upregulating the expression of DLL3, a nonfunctioning Notch ligand, leading to inhibition of the Notch signaling pathway.

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