

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Musashi-2 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 960121
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Musashi-2 Met1-His328 Accession # Q96DH6
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
Immunocytochemistry	8-25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

<p>Flow Cytometry</p>	<p>Detection of Musashi-2 in Rat Cortical Stem Cells by Flow Cytometry. Rat cortical stem cells were stained with Mouse Anti-Human Musashi-2 Monoclonal Antibody (Catalog # MAB3255, filled histogram) or isotype control antibody (Catalog # MAB0041, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.</p>	<p>Immunocytochemistry</p>	<p>Musashi-2 in K562 Human Cell Line. Musashi-2 was detected in immersion fixed K562 human chronic myelogenous leukemia cell line using Mouse Anti-Human Musashi-2 Monoclonal Antibody (Catalog # MAB3255) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm (punctate). View our protocol for Fluorescent ICC Staining of Non-adherent Cells.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Musashi-2 belongs to the evolutionarily conserved Musashi family of RNA binding proteins which are involved in the translational control of their target mRNAs. Musashi-2 has two tandem RNA-recognition domains (RRM-1 and RRM-2) that have the highly conserved RNP (ribonucleoprotein) motifs. By alternative splicing, at least three Musashi-2 isoforms exist. In mammalian nervous system, Musashi-1 and -2 are selectively expressed in neural progenitor cells and play important roles in maintenance of the stem cell fate. Human Musashi-2 shares 95% amino acid sequence homology with mouse Musashi-2 and 80% amino acid sequence identity with human Musashi-1. Translocations resulting in the formation of Musashi-2/HOXA9 fusion protein is associated with progression of chronic myelogenous leukemia to the accelerated phase and blast crisis.