

DESCRIPTION

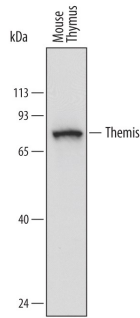
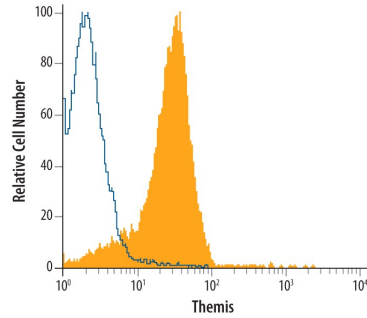
Species Reactivity	Mouse
Specificity	Detects mouse Themis in direct ELISAs and Western blots. In Western blots, 100% cross-reactivity with recombinant human (rh) Themis (aa 2-282) is observed under non-reducing conditions, and approximately 10% cross-reactivity with rhThemis (aa 2-282) is observed under reducing conditions.
Source	Monoclonal Rat IgG _{2B} Clone # 719945
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse Themis Lys122-Lys237 Accession # Q8BGW0
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 either lyophilized or 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
Western Blot	1 µg/mL	See Below
Intracellular Staining by Flow Cytometry	2.5 µg/10 ⁶ cells	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>Western Blot</p>  <p>Detection of Mouse Themis by Western Blot. Western blot shows lysates of mouse thymus tissue. PVDF membrane was probed with 1 µg/mL of Rat Anti-Mouse Themis Monoclonal Antibody (Catalog # MAB6816) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody. A specific band was detected for Themis at approximately 72 kDa (as indicated). This experiment was conducted under reducing conditions and using <i>Immunoblot Buffer Group 1</i>.</p>	<p>Intracellular Staining by Flow Cytometry</p>  <p>Detection of Themis in Mouse Thymocytes by Flow Cytometry. Mouse thymocytes were stained with Rat Anti-Mouse Themis Monoclonal Antibody (Catalog # MAB6816, filled histogram) or isotype control antibody (Catalog # MAB0061, open histogram), followed by Phycoerythrin-conjugated Anti-Rat IgG Secondary Antibody (Catalog # FO105B). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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

Themis (thymocyte-expressed molecule involved in selection), also called Gasp (Grb2-associating protein), is a 72 kDa, 641 amino acid (aa) cytosolic phosphoprotein mainly expressed in late double-negative and double-positive thymocytes. It is involved in thymocyte positive and negative selection through regulation of TCR signaling. Within the region used as an immunogen, mouse Themis shares 87% and 96% aa sequence identity with human and rat Themis, respectively.