Mouse/Rat Themis Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6816

DESCRIPTION

Species Reactivity	Mouse/Rat
Specificity	Detects mouse Themis in direct ELISAs and mouse and rat Themis in Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant human Themis is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-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.

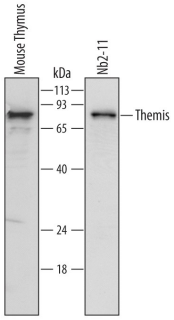
APPLICATIONS

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

DATA

Western Blot



Detection of Mouse and Rat Themis by Western Blot. Western blot shows lysates of mouse thymus tissue and Nb2-11 rat lymphoma cell line. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Mouse/Rat Themis Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6816) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Themis at approximately 73 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 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.** ● 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 (**TH**ymus-**E**xpressed **M**olecule **I**nvolved in **S**election; also C6orf190, Gasp and Thylex) is a 72-74 kDa member of the Themis family of proteins. It has restricted expression, being found in double negative #2-4 thymocytes, double positive thymocytes, and $CD4^+$ plus $CD8^+$ thymocytes and T cells. The molecule is known to constitute part of the TCR signalosome, along with LAT, Grb2 and PLCγ1, and is required for ERK and AP-1 activation. Themis appears to contribute to the process of positive selection. In particular, it is needed to prevent cell death during the selection process. Mouse Themis is 636 amino acids (aa) in length. It contains two globular CABIT (Cys-containing, all-beta in Themis) domains (aa 1-260 and 261-520) plus an NLS (aa 555-563). There are four isoform variants. One shows a 25 aa substitution for aa 238-636, a second possesses an alternative start site at Met90 coupled to a 13 aa substitution for aa 589-636, while third and fourth variants contain 7 aa and 17 aa substitutions for aa 589-636. Over aa 122-237, mouse Themis shares 96% and 87% aa identity with rat and human Themis, respectively.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449