

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse Caspase-11/Caspase-4 in direct ELISA.
<b>Source</b>	Monoclonal Rat IgG <sub>2B</sub> Clone # 919916
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse Caspase-11/Caspase-4 Pro81-Glu266 Accession # P70343
<b>Formulation</b>	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.

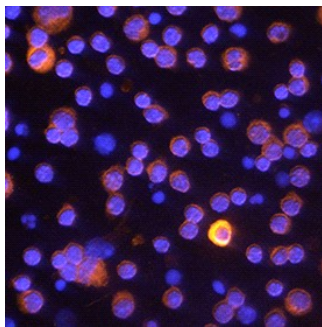
## APPLICATIONS

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below

## DATA

### Immunocytochemistry



**Caspase-11/Caspase-4 in Mouse Splenocytes.** Caspase-11/Caspase-4 was detected in immersion fixed mouse splenocytes treated with LPS using Rat Anti-Mouse Caspase-11/Caspase-4 Monoclonal Antibody (Catalog # MAB86481) at 25 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Mouse Caspase-11 (commonly referred as Caspase-4) is a member of the cysteine-aspartic acid protease family known as caspases that function in initiating apoptosis or activating proinflammatory cytokines. Mouse Caspase-11 is expressed as a 343 amino acid latent zymogen. The active caspase-11 is cleaved into two subunits, p20 (aa 81-266) and p10 (aa 286-373). Caspase-11 is one of several caspases associated with the inflammasome and plays an important role in the activation of proinflammatory cytokines. Caspase-11 is activated by an autocatalytic mechanism or by cleavage by Caspase-8 in response to ER stress or bacterial infection, and its expression and activation can be induced by exposure to LPS. The active enzyme can cleave and activate Caspase-1 which in turn activates IL-1 beta. Mouse Caspase-11 has a 59 and 89% homology to human and rat Caspase-4, respectively.