

Datasheet for 600-401-GW9**Ngp Antibody****Overview**

Description:	Anti-NGP (Neutrophilic granule protein) (RABBIT) Antibody - 600-401-GW9
Item No.:	600-401-GW9
Size:	100 µg
Applications:	IF, WB
Reactivity:	Mouse
Host Species:	Rabbit

Product Details

Background:	This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI). A proteomic study in 2011 determined a direct correlation between NGP mRNA levels and myeloid-derived suppressor cells. Specifically cathepsin B, a catalytic mechanism and potentially biomarker in a variety of cancers and amyloid plaque development, was inhibited by NGP. The significance of NGP as a negative regulator of tumor metastasis makes this antibody ideal for investigators involved in cancer research, as well as Alzheimer's research.
Synonyms:	rabbit anti-NGP antibody, Neutrophilic granule protein, Cystatin-like protein, Myeloid bactenecin protein, Myeloid secondary granule protein
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Ngp
Reactivity:	Mouse
Immunogen Type:	Recombinant Protein
Immunogen:	Affinity purified Anti-NGP antibody was prepared from whole rabbit serum produced by repeated immunizations with a recombinant protein of mouse NGP protein.

Purity/Specificity: Anti-NGP is directed against full-length mouse NGP. This product is an affinity purified antibody produced by immunoaffinity chromatography using recombinant protein coupled to agarose beads. A BLAST analysis was used to suggest reactivity with this protein in NGP based on 100% homology match for the immunogen sequence.

Relevant Links:

- [NCBI - NP_032720.2](#)
- [GeneID - 18054](#)
- [UniProtKB - O08692](#)
- [600-401-GW9 SDS](#)

Application Details

Tested Applications: IF, WB

Application Note: This affinity purified antibody has been tested for use in IF, and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band 39-42 kDa for non reduced and 20-27 kDa for reduced gels corresponding to NGP by western blotting in the appropriate cell lysate or extract.

Assay Dilutions: All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

IF: 1:200

WB: 1:1000

Formulation

Physical State: Liquid (sterile filtered)

Concentration: 1.10 mg/ml by UV absorbance at 280 nm

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative: 0.01% (w/v) Sodium Azide

Stabilizer: None

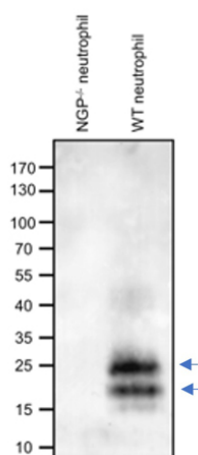
Shipping & Handling

Shipping Condition: Dry Ice

Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

Images



Western Blot

Western Blot Results of Rabbit Anti-NGP Antibody.

Lane 1: Mouse peritoneal neutrophils from NGP deficient mice.

Lane 2: Mouse peritoneal neutrophils from wild type.

Load: 5µg total lysate.

Primary Antibody: Anti-NGP at 1:1000 at RT for 2hrs.

Secondary Antibody: rabbit HRP secondary at 1:20,000 at RT for 1hr.

Blocking: 5% non-fat dry milk for 30 mins at RT.

Predicted/Observed size: 17, 20 kDa for NGP. Glycosylation shows shifting of MW.

Results: detects endogenous NGP expressed in mouse neutrophils.

Immunofluorescence Microscopy

Immunofluorescence of Rabbit Anti-NGP Antibody.

Tissue: myc-tagged NGP over expressed THP-1.

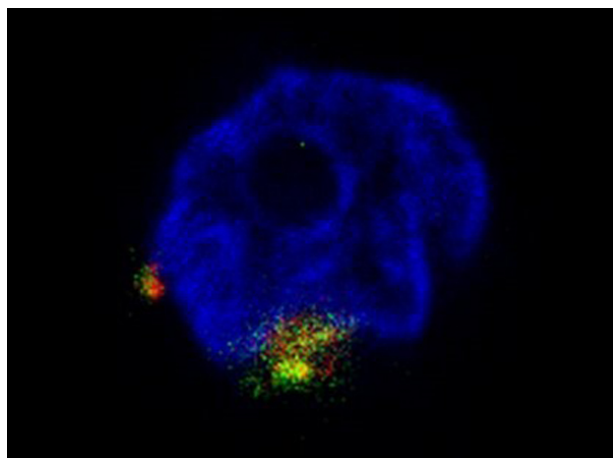
Fixation: 4% PFA.

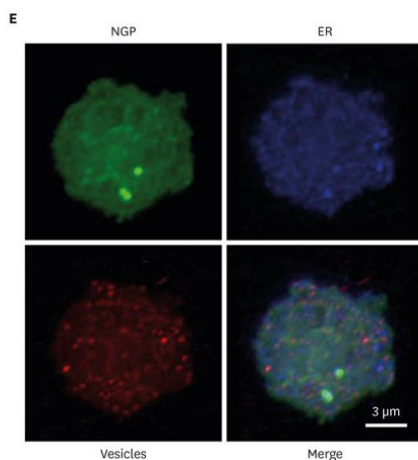
Primary Antibody: Anti-NGP at 1:200 at RT for 2hrs.

Secondary Antibody: rabbit secondary at 1:1000 at RT for 2mins.

Staining: NGP is stained red, myc-tag is stained green, and the nucleus is counterstained blue with DAPI.

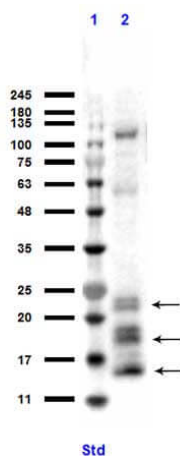
Localization: NGP (red) and myc-tag (green) were colocalized at perinuclear region.





Immunofluorescence Microscopy

(E) Mouse peritoneal neutrophils were stained against NGP (green), Calreticulin (blue), and lysobrite for granules (red). The stained cells were analyzed by confocal microscopy. A representative image is shown. Fig 2. PMID: 31720045



Western Blot

Western Blot of Rabbit anti-Ngp antibody.
 Lane 1: MW ladder opal pre-stained (p/n MB-210-0500).
 Lane 2: 32D lysate.
 Load: 10 μg per lane.
 Primary antibody: Ngp antibody at 1:1000 for overnight at 4°C.
 Secondary antibody: rabbit secondary HRP antibody (p/n 611-103-122) at 1:70,000 for 45 min at RT.
 Block: BlockOut (p/n MB-073) overnight at 4°C.
 Predicted/Observed size: 17, 20 kDa for Ngp. Higher banding due to glycosylation. ~125 kDa non-specific.

References

- Cao X et al. Oral Immunotherapy Reshapes Intestinal Immunosuppression via Metabolic Reprogramming to Enhance Systemic Anti-Tumor Immunity. *Adv Sci (Weinh)*. (2023)
- Hong J et al. Neutrophilic granule protein is a novel murine LPS antagonist. *Immune Netw*. (2019)

Disclaimer

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