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# Product datasheet for TA336883

## NLRP3 Mouse Monoclonal Antibody [Clone ID: 25N10E9]

### Product data:

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|---|---|
| **Product Type:** | Primary Antibodies |
| **Clone Name:** | 25N10E9 |
| **Applications:** | WB |
| **Recommend Dilution:** | WB: 2-5 ug/ml |
| **Reactivity:** | Human, Mouse |
| **Host:** | Mouse |
| **Isotype:** | IgG2b, kappa |
| **Clonality:** | Monoclonal |
| **Immunogen:** | A recombinant protein corresponding to the NOD domain* of murine NLRP3/NALP3 (amino acids 216-385) was used as the immunogen for this antibody. *Each region of NLRP3 has a different function. Oligomerization of NOD is required for formation of the NLRP3 i |
| **Formulation:** | PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles. |
| **Concentration:** | 0.5 mg/ml |
| **Purification:** | Protein G purified |
| **Gene Name:** | NLR family, pyrin domain containing 3 |
| **Database Link:** | NP_004886 Entrez Gene 216799 MouseEntrez Gene 114548 Human |

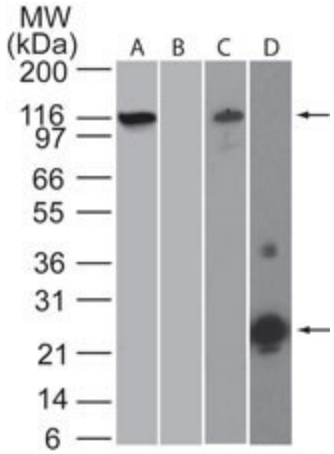
**Background:** NLRP3/NALP3 belongs to the NLR family of innate immune cytoplasmic receptors (reviewed in De Nardo and Latz, 2011; Kanneganti, 2010; Anand, 2011). NLR family members contain an N-terminus effector region consisting of either a pyrin (PYD), a CARD, or a BIR domain. NLRs also have an intermediate conserved NOD domain and a C-terminus LRR domain. NLRs, like TLRs, alert the immune system to the presence of PAMPs and DAMPs. Like a number of other NLRs, NLRP3 functions in a multiprotein complex called the inflammasome. The inclusion of a particular NLR within an inflammasome depends upon the upstream trigger. The NLRP3 inflammasome is considered to be a global sensor and assembles in response to a broad spectrum of PAMPs and DAMPs. For example, helmith, bacteria, plasmodium and viruses have all been shown to activate NLRP3 (reviewed in Menu and Vince, 2011). The PYD of activated NLRP3 associates with the PYD of ASC, triggering the CARD of ASC to associate with the CARD of caspase-1 and completes the assembly of the NLRP3 inflammasome. This serves as a platform for caspase-1 activation. Activation of NLRP3 can be inhibited by glybenclamide (also known as glyburide) (reviewed in Lamkanfi et al, 2009). Glybenclamide is an ATP-sensitive potassion channel inhibitor that has been shown to inhibit various biological processes including activation of the NRLP3 inflammasome. Glybenclamide is thought to act downstream of the P2X7 receptor but upsteam of NLRP3. Glybenclamide blocks activation of caspase-1 and IL-1beta K+ efflux inhibition. Glybenclamide has a number of additional functions besides blocking including enhancing insulin action and stimulating synthesis of glucose transporters. Researchers are encouraged to consult the published literature regarding additional information about how glybenclamide perturbs biological processes.

**Synonyms:** AGTAVPRL; AII; AVP; C1orf7; CIAS1; CLR1.1; FCAS; FCAS1; FCU; MWS; NALP3; PYPAF1

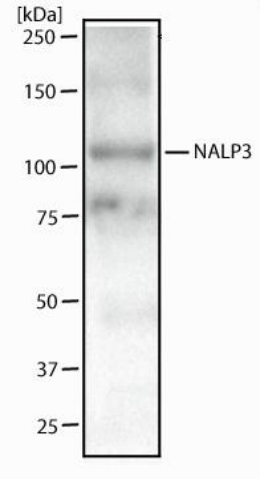
**Protein Families:** Druggable Genome

**Protein Pathways:** NOD-like receptor signaling pathway

## Product images:




Western Blot: NALP3 Antibody (25N10E9) TA336883 - Analysis using the NALP3 monoclonal antibody. (A), (B), mouse RAW lysate © and the recombinant mouse NLRP3 NOD domain protein immunogen (D) probed with 2 ug/ml antibody. goat anti-mouse Ig HRP s




Western Blot: NALP3 Antibody (25N10E9) TA336883 - Western blot analysis of Raw 264 cell lysate using NALP3 antibody (TA336883) at 2 ug/ml.