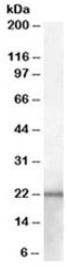
NGAL Goat Polyclonal Antibody / LCN2 Antibody (R34280)

Catalog No.	Formulation	Size
R34280-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	16819
Localization	Cytoplasmic
Applications	Western blot: 1-3ug/ml ELISA (peptide) LOD: 1:8000
Limitations	This NGAL Goat Polyclonal Antibody / LCN2 Antibody is available for research use only.



NGAL Goat Polyclonal Antibody detection in mouse kidney by WB. Western blot testing of mouse kidney lysate with the NGAL Goat Polyclonal Antibody at 2 ug/ml. A distinct band is detected at approximately 22 kDa, consistent with the expected molecular weight range of 22-25 kDa for LCN2. Visual inspection shows the target band clearly resolved near the 22 kDa marker with little additional membrane signal. The result demonstrates recognition of mouse Lipocalin 2 and provides western blot validation of this LCN2 Antibody in kidney tissue.

Description

NGAL Goat Polyclonal Antibody / LCN2 Antibody recognizes neutrophil gelatinase-associated lipocalin, a secreted glycoprotein encoded by the LCN2 gene. Also known as lipocalin 2, siderocalin and 24p3, NGAL belongs to the lipocalin family of small proteins characterized by a beta-barrel structure capable of binding hydrophobic molecules and other ligands. One of its best-characterized functions is binding iron-loaded bacterial siderophores, linking LCN2 to regulation of iron availability and antimicrobial host defense.

During bacterial infection, innate immune signaling can induce LCN2 production and secretion. The protein binds certain siderophores that microorganisms use to acquire iron from their environment. Sequestration of these iron-containing complexes restricts bacterial access to an essential nutrient and can inhibit microbial growth. This mechanism is an important component of nutritional immunity and connects NGAL with innate immune responses at mucosal and systemic sites. An NGAL Goat Polyclonal Antibody can support research into these interactions between iron metabolism, microbial growth and host defense.

LCN2 is also induced by inflammatory signaling, cellular stress and tissue injury. Elevated expression has been investigated extensively in kidney injury and inflammatory disease, and NGAL has become an important biomarker in renal research. Its biological roles extend beyond antimicrobial siderophore sequestration and include relationships with cellular iron handling, differentiation, survival and tissue remodeling. LCN2 expression and signaling have also been studied in cardiovascular disease and cancer, where altered iron metabolism and inflammatory pathways can contribute to disease progression.

The name neutrophil gelatinase-associated lipocalin reflects the ability of LCN2 to associate with matrix metalloproteinase 9, although the protein also occurs independently in different molecular forms. These properties place NGAL at an intersection of innate immunity, inflammation and iron metabolism. NSJ Bioreagents provides this goat polyclonal reagent for researchers investigating LCN2 biology. An NGAL Goat Polyclonal Antibody provides a useful tool for studying lipocalin 2 and its roles in siderophore sequestration, iron homeostasis, antimicrobial defense and inflammatory responses.

For an additional antibody to this target, see our LCN2 Antibody / NGAL Antibody.

Application Notes

Optimal dilution of the NGAL Goat Polyclonal Antibody / LCN2 Antibody should be determined by the researcher.

Immunogen

Amino acids HRYPQVQSYNVQ were used as the immunogen for this NGAL Goat Polyclonal Antibody.

Storage

Aliquot and store the NGAL Goat Polyclonal Antibody at -20oC.

Alternate Names

Lipocalin 2 antibody, LCN2 antibody, Neutrophil gelatinase-associated lipocalin antibody, Siderocalin antibody, 24p3 antibody, Uterocalin antibody

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