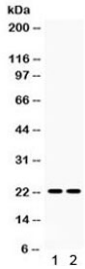
Lipocalin 2 Antibody / Neutrophil Gelatinase-Associated Lipocalin Antibody (R31946)

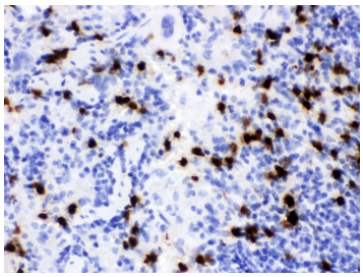
Catalog No.	Formulation	Size
R31946	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

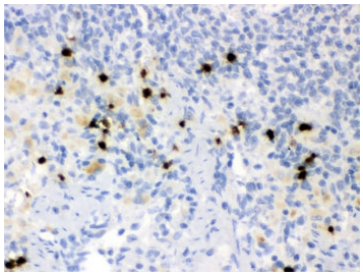
Availability	1-3 business days
Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA, 0.025% sodium azide
UniProt	P11672
Localization	Cytoplasmic, secreted
Applications	Western blot: 0.1-0.5ug/ml IHC (FFPE): 0.5-1ug/ml IHC (Frozen): 0.5-1ug/ml ELISA: 0.1-0.5ug/ml (mouse protein tested); request BSA-free format for coating
Limitations	This Lipocalin 2 antibody is available for research use only.



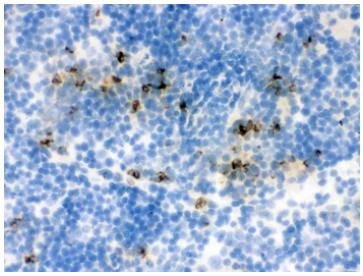
Lipocalin 2 Antibody detection in rat spleen and lung by WB. Western blot testing of rat spleen (lane 1) and rat lung (lane 2) lysates with the Lipocalin 2 Antibody. A predominant band is detected at approximately 22-25 kDa in both samples, corresponding to the expected molecular weight of LCN2. The signal is clearly resolved in both tissues and supports recognition of Lipocalin 2 in rat samples. These results demonstrate western blot detection of LCN2/NGAL with this Neutrophil Gelatinase-Associated Lipocalin Antibody.



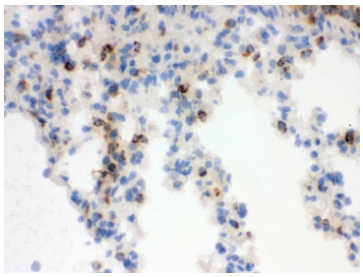
Lipocalin 2 Antibody staining of FFPE mouse spleen by IHC. Immunohistochemistry of FFPE mouse spleen sections using the Lipocalin 2 Antibody. Numerous strongly brown-positive cells are distributed throughout the splenic tissue, occurring individually and in localized groups against a predominantly blue-counterstained background. The positive cells show primarily cytoplasmic staining and are readily distinguished from the surrounding negative cell population. Heat-induced epitope retrieval was performed by boiling sections in pH 6 citrate buffer for 20 minutes followed by cooling before testing. The staining demonstrates detection of LCN2 with this Neutrophil Gelatinase-Associated Lipocalin Antibody.



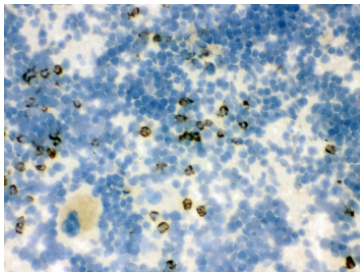
Lipocalin 2 Antibody detection of scattered positive cells in FFPE rat spleen by IHC. Immunohistochemistry of FFPE rat spleen sections using the Lipocalin 2 Antibody. Scattered intensely brown-positive cells are visible throughout the densely cellular splenic tissue, with most surrounding cells remaining comparatively negative. The staining is predominantly cytoplasmic and heterogeneous, with isolated positive cells and small cellular clusters clearly apparent. Heat-induced epitope retrieval was performed by boiling sections in pH 6 citrate buffer for 20 minutes followed by cooling before testing. The focal cellular staining demonstrates recognition of LCN2 with this Neutrophil Gelatinase-Associated Lipocalin Antibody.



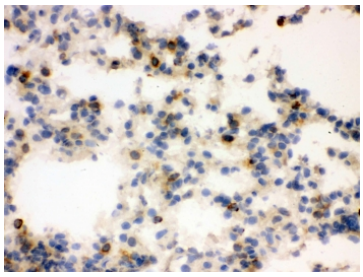
Lipocalin 2 Antibody staining of frozen mouse spleen by IHC. Immunohistochemistry of frozen mouse spleen sections using the Lipocalin 2 Antibody. Distinct brown-positive cells are scattered through the splenic tissue and occur in small localized groups, contrasting with the densely packed blue-counterstained surrounding cells. The positive population displays predominantly cytoplasmic staining, while most of the tissue shows little chromogenic signal. This frozen-section validation demonstrates detection of LCN2 in mouse spleen with this Neutrophil Gelatinase-Associated Lipocalin Antibody.



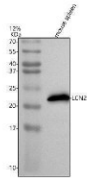
Lipocalin 2 Antibody staining of frozen mouse lung by IHC. Immunohistochemistry of frozen mouse lung sections using the Lipocalin 2 Antibody. Brown-positive cells are distributed within the pulmonary tissue, with staining concentrated in individual cells and small groups around the alveolar spaces. Most nuclei remain blue and negative, while the positive cells show predominantly cytoplasmic signal. The preserved alveolar architecture provides clear localization of the immunoreactivity within the lung parenchyma. This staining demonstrates detection of LCN2 in frozen mouse lung with this Neutrophil Gelatinase-Associated Lipocalin Antibody.



Lipocalin 2 Antibody detection of focal positive cells in frozen rat spleen by IHC. Immunohistochemistry of frozen rat spleen sections using the Lipocalin 2 Antibody. Strong brown staining is concentrated within scattered individual cells and small clusters against a densely blue-counterstained splenic background. The majority of surrounding cells show little or no chromogenic staining, producing a clearly heterogeneous pattern. The positive cells exhibit predominantly cytoplasmic signal. This frozen-section staining demonstrates cellular detection of LCN2 in rat spleen with this Neutrophil Gelatinase-Associated Lipocalin Antibody.



Lipocalin 2 Antibody staining of frozen rat lung by IHC. Immunohistochemistry of frozen rat lung sections using the Lipocalin 2 Antibody. Numerous brown-positive cells are distributed throughout the pulmonary tissue, including cells bordering alveolar spaces, while nuclei are counterstained blue. Staining is heterogeneous and predominantly cytoplasmic, with strongly positive individual cells interspersed among more weakly stained or negative cells. The visible alveolar architecture provides clear tissue context for the LCN2-positive population. This staining demonstrates detection of LCN2 in frozen rat lung with this Neutrophil Gelatinase-Associated Lipocalin Antibody.



Lipocalin 2 Antibody detection in mouse spleen by WB. Western blot testing of mouse spleen tissue lysate with the Lipocalin 2 Antibody at 0.5 ug/ml. Lane 1 contains 30 ug of mouse spleen lysate separated by 5-20% SDS-PAGE under reducing conditions. A strong, well-defined band is detected at approximately 22 kDa, consistent with the expected molecular weight of LCN2. Minimal additional signal is visible across the remainder of the blot, demonstrating clean recognition of the target protein in mouse spleen. This result expands the western blot validation of this Neutrophil Gelatinase-Associated Lipocalin Antibody to mouse tissue.

Description

Lipocalin 2 Antibody / Neutrophil Gelatinase-Associated Lipocalin Antibody recognizes lipocalin 2, a secreted glycoprotein encoded by the LCN2 gene. Also known as NGAL, siderocalin and 24p3, LCN2 belongs to the lipocalin family of small proteins characterized by a beta-barrel structure capable of binding hydrophobic molecules and other ligands. Lipocalin 2 is particularly notable for its ability to bind iron-loaded bacterial siderophores, connecting this protein with regulation of iron availability and host defense against microbial infection.

During bacterial infection, innate immune signaling can stimulate the production and secretion of LCN2. By binding siderophores used by susceptible bacteria to acquire iron, lipocalin 2 restricts access to this essential nutrient and can inhibit bacterial growth. This process contributes to nutritional immunity, in which the host limits the availability of nutrients and metals required by invading microorganisms. A Lipocalin 2 Antibody can therefore support research examining antimicrobial defense, innate immune signaling and mechanisms controlling iron homeostasis during infection.

LCN2 expression is also responsive to inflammation, cellular stress and tissue injury. Elevated NGAL has been investigated extensively in renal injury and in research involving inflammatory disorders, cardiovascular biology and cancer. Its biological functions extend beyond siderophore sequestration and include relationships with cellular iron handling, differentiation, survival and tissue remodeling. A Neutrophil Gelatinase-Associated Lipocalin Antibody provides a complementary reagent for investigating these functions and the molecular mechanisms regulating LCN2 expression and activity.

The name neutrophil gelatinase-associated lipocalin reflects the ability of LCN2 to associate with matrix metalloproteinase 9, although lipocalin 2 also exists independently in different molecular forms. Its involvement in host defense, inflammatory biology and iron metabolism places LCN2 at an important intersection between innate immunity and cellular metabolism. NSJ Bioreagents provides this polyclonal reagent for researchers investigating lipocalin 2 biology. A Lipocalin 2 Antibody provides a useful tool for studying LCN2/NGAL and its roles in siderophore sequestration, iron homeostasis, innate immune defense and inflammatory responses.

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

Application Notes

Optimal dilution of the Lipocalin 2 antibody should be determined by the researcher.

Immunogen

Amino acids 21-200 of mouse Lipocalin 2 were used as the immunogen for the Lipocalin 2 antibody.

Storage

After reconstitution, the Lipocalin 2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

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

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