

Mouse Anti-NGAL/Lipocalin-2 [LCN2-Q4]: MC0339, MC0339RTU7

Intended Use: For Research Use Only

Description: In addition to the monomeric mammalian progelatinase, two additional forms of progelatinase have been identified. The shorter of these additional forms is a covalently linked, disulfide-bridged protein that heterodimerizes with a short protein; an α 2-Microglobulin-related protein known as neutrophil gelatinase-associated lipocalin (NGAL), which is moderately expressed in breast and lung tissues. NGAL belongs to the lipocalin family and has a high degree of similarity with rat α 2-Microglobulin-related protein and mouse protein 24p3. NGAL is able to bind a derivative of the bacterial chemotactic peptide, suggesting that it has important immuno-modulatory functions. NGAL has been described as an inflammatory protein; it is released into the circulation as a result of the inflammatory activation of leukocytes initiated by the extra-corporeal circulation. In addition, NGAL synthesis is induced in epithelial cells in inflammatory and neoplastic colorectal diseases. In conclusion, NGAL may serve as a scavenger of bacterial products to function in the anti-inflammatory process.

Specifications

Clone: LCN2-Q4
 Source: Mouse
 Isotype: IgG1
 Reactivity: Human
 Localization: Secreted
 Formulation: Antibody in PBS pH7.4, containing BSA and \leq 0.09% sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC
 Package:

Description	Catalog No.	Size
NGAL/Lipocalin-2 [LCN2-Q4] Concentrated	MC0339	1 ml
NGAL/Lipocalin-2 [LCN2-Q4] Prediluted	MC0339RTU7	7 ml

IHC Procedure*

Positive Control Tissue: Intestinal cancer
 Concentrated Dilution: 25-100
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.

References:

1. Insulin treatment prevents wounding associated changes in tissue and circulating neutrophil MMP-9 and NGAL in diabetic rats. Abdollahi M, et al. PLoS One 12:e0170951, 2017.
2. Antimicrobial peptides secreted by equine mesenchymal stromal cells inhibit the growth of bacteria commonly found in skin wounds. Harman RM, et al. Stem Cell Res Ther 8:157, 2017.
3. Blood transfusion improves renal oxygenation and renal function in sepsis-induced acute kidney injury in rats. Zafrani L, et al. Crit Care 20:406, 2016.
4. Fecal Neutrophil Gelatinase Associated Lipocalin (NGAL) as a biomarker for Inflammatory Bowel Disease. Thorsvik S, et al. J Gastroenterol Hepatol N/A:N/A, 2016.
5. IFN- γ induction by neutrophil-derived IL-17A homodimer augments pulmonary antibacterial defense. Cai S, et al. Mucosal Immunol 9:718-29, 2016.
6. HIV-Enhancing Factors Are Secreted by Reproductive Epithelia upon Inoculation with Bacterial Vaginosis-Associated Bacteria. Eade CR, et al. Protein Pept Lett 22:672-80, 2015.
7. Adverse effects of α -ketoglutarate/malate in a rat model of acute kidney injury. Bienholz A, et al. Am J Physiol Renal Physiol 303:F56-63, 2012.