Mouse Lipocalin-2/NGAL Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1857

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Lipocalin-2/NGAL in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant rat Lipocalin-2/NGAL is observed, approximately 10% cross-reactivity with recombinant human (rh) Lipocalin-2/NGAL is observed, and less than 5% cross-reactivity with rhLipocalin-1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Lipocalin-2/NGAL Gln21-Asn200 Accession # P11672
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse Lipocalin-2/NGAL (Catalog # 1857-LC)
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Mouse Lipocalin-2/NGAL (Catalog # 1857-LC), see our available Western blot detection antibodies

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Mouse Lipocalin-2 was cloned from mouse kidney cells (1). Its very high level of expression at the post-stratum uterus gave it the name uterocalin (2). Lipocalin-2 has been implicated in a variety of processes including cell differentiation, tumorigenesis, and apoptosis (3 - 5). Studies indicate that Lipocalin-2 binds a bacterial catecholate siderophore that is bound to a ferric ion, such as enterobactin, with a subnanomolar dissociation constant (K_D = 0.41 nM) (6). The bound ferric enterobactin complex breaks down slowly in a month into dihydroxybenzoyl serine and dihydroxybenzoic acid (DHBA). It also binds to a ferric DHBA complex with much less K_D values (7.9 nM) (6). Secretion of Lipocalin-2 in immune cells increases in response to stimulation of Toll-like receptor as an acute phase response to infection. As a result, it acts as a potent bacteriostatic reagent by sequestering iron (7). Moreover, Lipocalin-2 can alter the invasive and metastatic behavior of Ras-transformed breast cancer cells *in vitro* and *in vivo* by reversing the epithelial to mesenchymal transition inducing activity of Ras, through restoration of E-cadherin expression, via effects on the Ras-MAPK signaling pathway (8).

References:

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