Recombinant Human Lipocalin-2/NGAL/LCN2 Protein



RPCB0006

Product Information

Product SKU: RPCB0006 Gene ID: 3934 Size: 10μg

Tag: C-His Reactivity: Human

Additional Information

Expression Host: - **Swissprot**: P80188

Purity: > 95% by SDS-PAGE.

Protein Information

Background:

Lipocalin-2, also known as Neutrophil Gelatinase-Associated Lipocalin (NGAL), was originally identified as a component of neutrophil granules . It is a 25 kDa protein existing in monomeric and homo- and heterodimeric forms, the latter as a dimer with human neutrophil gelatinases (MMP-9). Its expression has been observed in most tissues normally exposed to microorganism, and its synthesis is induced in epithelial cells during inflammation. Lipocalin-2 has been implicated in a variety of processes including cell differentiation, tumorigenesis, and apoptosis. Studies indicate that Lipocalin-2 binds a bacterial catecholate sidropore bound to ferric ion such as enterobactin with a subnanomolar dissociation constant . 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 Kd values (7.9 nM). Secretion of Lipocalin-2 in immune cells increases by 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. Moreover, Lipocalin-2 can alter the invasive and metastatic behavior of Ras-transformed breast cancer cells in vitro and in vivo by reversing epithelial to mesenchymal transition inducing activity of Ras, through restoration of E-cadherin expression, via effects on the Ras-MAPK signaling pathway.

Protein Description: High quality, high purity and low endotoxin recombinant Recombinant Human

Lipocalin-2/NGAL/LCN2 Protein , tested reactivity in HEK293 cells and has been

validated in SDS-PAGE.100% guaranteed.

Endotoxin: $< 0.01 \text{ EU/}\mu\text{g}$ of the protein by LAL method.

Formulation: Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Storage: Store at -20°C. Store the lyophilized protein at -20°C to -80°C up to 1 year from the

date of receipt.After reconstitution, the protein solution is stable at -20°C for 3

months, at 2-8°C for up to 1 week.