Recombinant Human NGAL/Lipocalin-2 Protein (His Tag, E.coli)

Catalog Number: PKSH032807

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

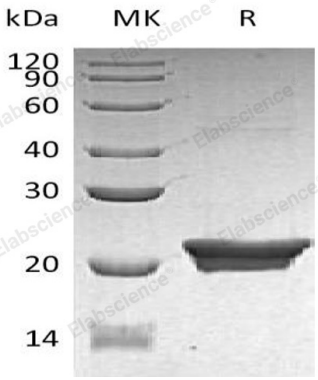
Description

Species	Human
Mol_Mass	21.8 kDa
Accession	P80188
Bio-activity	Not validated for activity

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C.
Formulation	Supplied as a 0.2 μm filtered solution of PBS, 50% Glycerol, pH 7.4.
Reconstitution	Not Applicable

Data



> 90 % as determined by reducing SDS-PAGE.

Background

Neutrophil gelatinase-associated lipocalin(LCN2) is a secreted protein and belongs to the calycin superfamily. This protein is released from injured tubular cells after various damaging stimuli; is already known by nephrologists as one of the most promising biomarkers of incoming Acute Kidney Injury (AKI). Recent evidence also suggests its role as a biomarker in a variety of other renal and non-renal conditions. Moreover; recent studies seem to suggest a potential involvement of this factor also in the genesis and progression of chronic kidney diseases. NGAL is the first known mammalian protein which specifically binds organic molecules called siderophores; which are high-affinity iron chelators. NGAL; first known as an antibacterial factor of natural immunity; and an acute phase protein; is currently one of the most interesting and enigmatic proteins involved in the process of tumor development. acting as an intracellular iron carrier and protecting MMP9 from proteolytic degradation; NGAL has a clear pro-tumoral effect; as has already been observed in different tumors (e.g. breast; stomach; oesophagus; brain) in humans. In thyroid carcinomas; NGAL is strongly induced by NF-kB; an important factor involved both in tumor growth and in the link between chronic inflammation and neoplastic development. Thus; Lipocalin-2 (LCN2/NGAL) has been implicated in a variety of processes including cell differentiation; proliferation; survival and morphogenesis.

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