Recombinant Human HIN-1/SCGB3A1

Catalog Number: 2790-HN

DESCRIPTION

Source	*E. coli*-derived Phe21-Gly104 Accession # Q96QR1
N-terminal Sequence Analysis	Phe21
Predicted Molecular Mass	8.2 kDa

SPECIFICATIONS

SDS-PAGE	6 kDa, reducing conditions
Activity	Measured by the ability of the immobilized protein to support the adhesion of the A549 human lung carcinoma cells. The ED_{50} for this effect is 0.15-0.75 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 250 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
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. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

High in Normal-1 (HIN-1), also known as Uteroglobin related protein 2 (UGRP2), is an 8 kDa secreted protein of the secretoglobin superfamily (SCGB3A1) (1). HIN-1 is expressed in bronchial epithelial and secretory Clara cells, mammary epithelial cells (particularly during pregnancy), salivary glands, and the prostate (2-5). It is up-regulated in Clara cells by IL-4, IL-13, Oncostatin M, EGF, and TGF-α and down-regulated by IFN-α, β, and γ (6-9). It is secreted into bronchial lavage fluid, saliva, and plasma, and may form disulfide-linked dimers (10). HIN-1 binds to the macrophage scavenger receptor MARCO, and to the surface of mammary and bronchial epithelial cells (11, 12). HIN-1 promotes apoptosis and inhibits the proliferation, migration, and invasion of breast cancer cells (12). The down-regulation of HIN-1 expression in many breast, lung, and prostate cancers correlates with hypermethylation of its promoter (4, 10, 13, 14). Mature human HIN-1 shares 58% and 62% aa sequence identity with mouse and rat HIN-1, respectively (4).

References:

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