
Product Data Sheet

Product Name: ISG15 Human
 Cat. No.: GP23713
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	ISG15; G1P2; IFI15; UCRP; ISG15 Ubiquitin-like modifier.		
Amino Acid Sequence	MADQLTEEQI AEFKEAFSLF DKDGDGTITT KELGTVMRSL GQNPTEAELQ DMINEVDADG NGTIDFPEFL TMMARKMKDT DSEEEIREAF RVFDKDGNGY ISAAELRHVM TNLGEKLTDE EVDEMIREAD IDGDGQVNYE EFVQMMTAKG SMGWDLTVKM LAGNEFQVSL SSSMSVSELK AQITQKIGVH AFQORLAVHP SGVALQDRVP LASQGLGPGS TVLLVVDKCD EPLNILVRNN KGRSSTYEVR LTQTV AHLKQ QVSGLEGVQD DLFWLT FEGK PLEDQLPLGE YGLKPLSTVF MNLRLRGG.		
Formulation	The ISG15 solution contains 20mM Tris-HCl pH-8, 100mM NaCl and 1mM DTT.		

Introduction

ISG15 ubiquitin-like Modifier is conjugated to the intracellular target proteins after IFN-alpha or IFN-beta stimulation. ISG15 enzymatic pathway is partially distinct from that of ubiquitin, differing in substrate specificity and interaction with ligating enzymes. ISG15 conjugation pathway uses a dedicated E1 enzyme, but seems to converge with the ub conjugation pathway at the level of a specific E2 enzyme. ISG15 protein targets include STAT1, SERPINA 3G/SPI2A, JAK1, MAPK3/ERK1, PLCG1, EIF2AK2/PKR, MX1/MXA, and RIG-1. Deconjugated by USP18/UBP43 shows specific chemotactic activity towards neutrophils and activates them to induce release of eosinophil chemotactic factors. ISG15 serves as a trans-acting binding factor directing the association of ligated target proteins to intermediate filaments. ISG15 plays a role in autocrine, paracrine and endocrine mechanisms, as in cell-to-cell signaling, possibly partly by inducing ifn-gamma secretion by monocytes and macrophages. ISG15 displays antiviral activity during viral infections. ISG15 in response to IFN-TAU secreted by the conceptus, ligates to and

Caution: Product has not been fully validated for medical applications. For research use only.

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regulate proteins involved in the release of prostaglandin F2-alpha and thus prevent lysis of the corpus luteum and maintain the pregnancy. ISG15 shares several common properties with other ubiquitin-like molecules, but its activity is strongly regulated by precise signaling pathways that have a role in innate immunity.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

ISG15 Human Recombinant fused to N-terminal Calmodulin Tag (151 a.a.) produced in E.Coli is a single, non-glycosylated polypeptide chain containing a total of 308 amino acids (157 a.a. without tag) and having a molecular mass of 34 kDa.

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