

Product Information

IRS1 (1-355), GST-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SRP5193**
Storage Temperature -70°C

Synonym: HIRS-1

Product Description

IRS1 is the substrate for the insulin tyrosine kinase receptor and is found in a variety of insulin-responsive cells and tissues. IRS1 protein has no intrinsic enzymatic activity but acts as a docking protein, via the SH2 domains, for mediating the insulin downstream signaling events. IRS1 has been shown to associate with the 14-3-3 family of proteins and this could play a role in the regulation of insulin sensitivity by interrupting the association between the insulin receptor and IRS1. IRS1 may be associated with colorectal cancer, and diet and related factors may affect the risk by modifying plasma insulin levels. Thus, the interindividual variation in insulin signaling mediated by IRS1 may play a plausible role in the development of colorectal cancer.²

Recombinant human IRS1 (1-355) was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM_005544. Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~65 kDa

Purity: 70–95% (SDS-PAGE, see Figure 1)

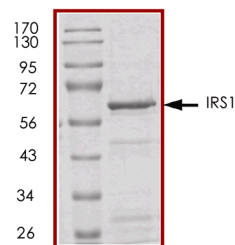
Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at -70°C is recommended. After opening, aliquot into smaller quantities and store at -70°C . Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.
SDS-PAGE Gel of Typical Lot
70–95% (densitometry)



References

1. Ogiyama, T. et al., 14-3-3 protein binds to insulin receptor substrate-1, one of the binding sites of which is in the phosphotyrosine binding domain. *J. Biol. Chem.*, **272**, 25267-25274 (1997).
2. Slattery, M.L., et al., Genetic variation in IGF1, IGFBP3, IRS1, IRS2 and risk of breast cancer in women living in Southwestern United States. *Breast Cancer Res. Treat.*, **104**, 197-209 (2007).

FF,DKF,MAM 10/11-1