B18R, Human Recombinant Carrier-Free

Recombinant Protein

Cat. # GF156

Lot # XXXXXX

FOR RESEARCH USE ONLY
NOT FOR USE IN DIAGNOSTIC PROCEDURES
NOT FOR HUMAN OR ANIMAL CONSUMPTION

pack size: 50 µg

Store at -80ºC

Certificate of Analysis

Background

B18R is a virally-encoded protein that acts as a decoy receptor for Type 1 Interferons. B18R enables increased cell viability during RNA transfection protocols designed to convert human somatic donor cells into iPSCs via direct delivery of synthetic mRNA's. As a type I IFN receptor, B18R has a broad species specificity. It has high affinity for human IFN-alpha and also binds rabbit, bovine, rat, pig, and mouse IFN-alpha and IFN-beta.

EMD Millipore's B18R protein can be used with the Simplicon™ RNA Reprogramming Technology (Catalog No. SCR550) to create "foot-print" free human iPS cells at the highest efficiency without unwanted RNA degradation caused by cellular IFN responses.

Source

Insect cells infected with baculovirus: amino acids His20-Glu 351 with a His-tag attached of Vaccinia Virus B18R.

Concentration

0.5 mg/mL

Molecular Mass

Product has a predicted molecular mass of 38,389. The DTT-reduced protein migrates as a 48 kDa polypeptide on SDS-PAGE due to glycosylation. The non-reduced protein migrates as a 46 kDa polypeptide on SDS-PAGE due to internal cystines.

Purity

Product is > 98%, as determined by SDS-PAGE.

Endotoxin

Product is < 0.05 ng/µg cytokine as determined by the LAL assay.

Presentation

Sterile liquid;10 mM phosphate, 0.5 M NaCl, pH 7.5 buffer and is filtered with a 0.2µm filter before vialing.

Quality Control Assay

Bioactivity assay: The ND50 of this protein, as measured by neutralization of Mouse IFN alpha 2 Recombinant Protein, is ≤800 pg/mL in the presence of 1 ng/mL Mouse IFN alpha 2. This corresponds to a specific activity of ≥1.3 x 10e6 Units/mg.

Storage and Handling

For best recovery, quick-spin vial prior to opening. Thaw on ice. While on ice, aliquot B18R protein into sterile, nuclease-free, low protein-binding eppendorf tubes and store at -80°C. Limit repeated freeze and thaw cycle. Use in a sterile environment.

Further dilutions should be made into appropriate buffer or medium

Representative Data

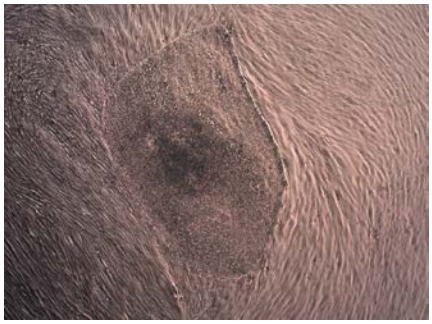

Figure 1. Human iPS cells generated using Simplicon™ RNA Reprogramming Kit (Catalog No. SCR550) and B18R protein. hiPS colonies at 26 days post-transfection.

SPECIES LEGEND: **H** Human **Ca** Canine **M** Mouse **R** Rat **Rb** Rabbit **B** Bovine **P** Porcine **WR** Most Common Vertebrates

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Please visit www.millipore.com for additional product information and references.