abcam

Product datasheet

Recombinant human Interferon gamma protein (Active) ab9659

4 References 3 Images

Description

Product name	Recombinant human Interferon gamma protein (Active)
Biological activity	The ED_{50} determined by a cytotoxicity assay using HT-29 cells is ≤ 0.05 ng/ml, corresponding to a specific activity of ≥ 2 x 10^7 units/mg.
Purity	> 98 % SDS-PAGE. >98%% HPLC analyses. Sterile filtered.
Endotoxin level	< 1.000 Eu/µg
Expression system	Escherichia coli
Accession	Q14609
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MQDPYVKEAE NLKKYFNAGH SDVADNGTLF LGILKNWKEE SDRKIMQSQI VSFYFKLFKN FKDDQSIQKS VETIKEDMNV KFFNSNKKKR DDFEKLTNYS VTDLNVQRKA IHELIQVMAE LSPAAKTGKR KRSQMLFQGR RASQ
Predicted molecular weight	17 kDa
Amino acids	1 to 144

Specifications

Our **Abpromise guarantee** covers the use of **ab9659** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Functional Studies SDS-PAGE HPLC

Form	Lyophilized

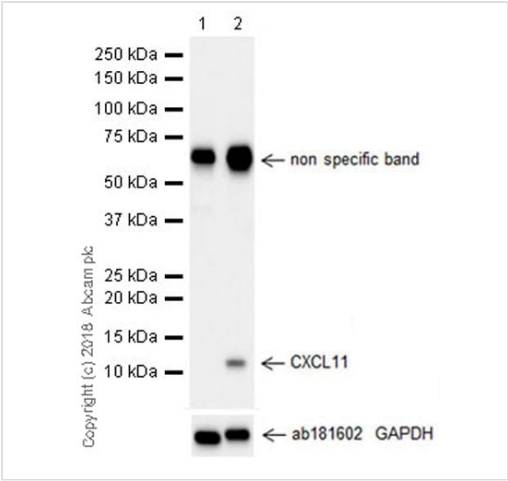
Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. Constituent: PBS This product is an active protein and may elicit a biological response in vivo, handle with caution.
Reconstitution	Centrifuge vial prior to opening. Reconstitute in 100 µl 1x PBS, pH 8.0 to a concentration of 1.0 mg/ml. Do not vortex. Long term storage: Follow reconstitution with further dilution in a buffer containing a carrier protein (example; 0.1% BSA).

General Info

Function	Produced by lymphocytes activated by specific antigens or mitogens. IFN-gamma, in addition to having antiviral activity, has important immunoregulatory functions. It is a potent activator of macrophages, it has antiproliferative effects on transformed cells and it can potentiate the antiviral and antitumor effects of the type I interferons.
Tissue specificity	Released primarily from activated T lymphocytes.
Involvement in disease	In Caucasians, genetic variation in IFNG is associated with the risk of aplastic anemia (AA) [MIM:609135]. AA is a rare disease in which the reduction of the circulating blood cells results from damage to the stem cell pool in bone marrow. In most patients, the stem cell lesion is caused by an autoimmune attack. T-lymphocytes, activated by an endogenous or exogenous, and most often unknown antigenic stimulus, secrete cytokines, including IFN-gamma, which would in turn be able to suppress hematopoiesis.
Sequence similarities	Belongs to the type II (or gamma) interferon family.
Post-translational modifications	Proteolytic processing produces C-terminal heterogeneity, with proteins ending alternatively at Gly-150, Met-157 or Gly-161.
Cellular localization	Secreted.

Images



Western blot - Recombinant human Interferon gamma protein (ab9659)

All lanes : Anti-CXCL11 antibody [EPR21755-173] (**ab216157**) at 1/1000 dilution

Lane 1 : THP-1 (hman monocytic leukemia cell line) whole cell lysate
Lane 2 : THP-1 treated with 200 ng/ml interferon-gamma (IFN-gamma, ab9659) and 50 ng/ml lipopolysaccharide (LPS) for 24 hours, then 300 ng/ml Brefeldin A (BFA) was added to the treated cells for 20 hours, whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

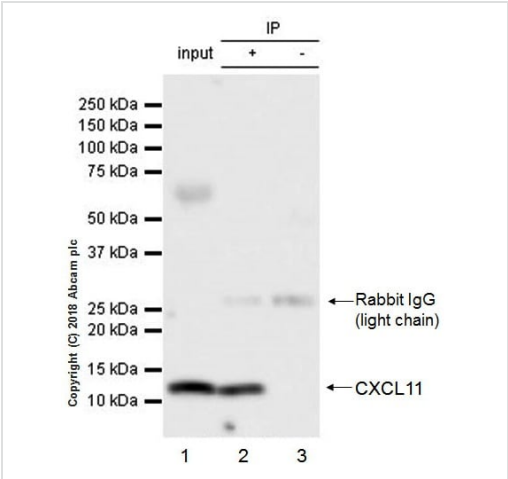
Developed using the ECL technique.

Observed band size: 11 kDa

Exposure time: 37 seconds

Blocking/Dilution: 5% NFDM/TBST

The expression profile observed is consistent with what has been described in the literature (PMID: 17142784).



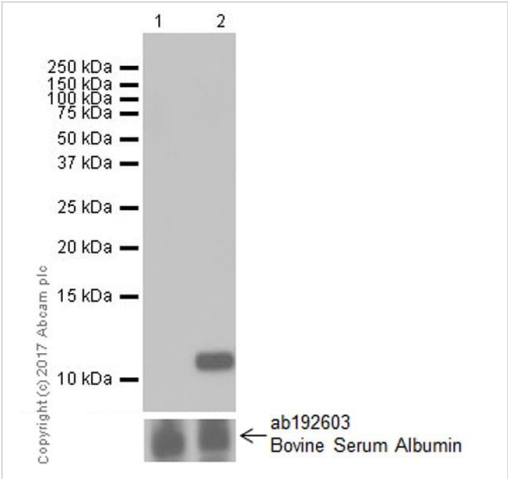
Immunoprecipitation - Recombinant human Interferon gamma protein (ab9659)

CXCL11 was immunoprecipitated from 0.35mg of THP-1 (human monocytic leukemia cell line) whole cell lysate with **ab216157** at 1/30 dilution. Western blot was performed from the immunoprecipitate using **ab216157** at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/5000 dilution.

Lane 1: THP-1 (human monocytic leukemia cell line) treated with 200 ng/ml interferon-gamma (IFN-gamma, ab9659) and 50 ng/ml lipopolysaccharide (LPS) for 24 hours, then added 300 ng/ml Brefeldin A (BFA) for 20 hours, whole cell lysate 10ug (Input).
Lane 2: **ab216157** IP in THP-1 treated with 200 ng/ml interferon-gamma (IFN-gamma, ab9659) and 50 ng/ml lipopolysaccharide (LPS) for 24 hours, then added 300 ng/ml Brefeldin A (BFA) for 20 hours, whole cell lysate.
Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab216157** in THP-1 treated with 200 ng/ml interferon-gamma (IFN-gamma,

ab9659) and 50 ng/ml lipopolysaccharide (LPS) for 24 hours, then added 300 ng/ml Brefeldin A (BFA) for 20 hours, whole cell lysate.

Blocking/Dilution buffer: 5% NFDM/TBST



Western blot - Recombinant human Interferon gamma protein (ab9659)

All lanes : Anti-IP10 antibody [EPR20764] (**ab214668**) at 1/1000 dilution

Lane 1 : Untreated THP-1 (human monocytic leukemia cell line) culture supernatant
Lane 2 : THP-1 treated with 200 ng/ml interferon-gamma (IFN-gamma, ab9659) and 50 ng/ml lipopolysaccharides (LPS) for 24 hours, culture supernatant

Lysates/proteins at 15 µl per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Developed using the ECL technique.

Observed band size: 12 kDa

Exposure time: 15 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

IP10 protein secretion can be induced by IFN-gamma treatment (PMID: 11907072).

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