

# Anti-FCER1G Antibody [PSH24-96]

HA724491



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell, IHC-P, FC, IP
<b>Molecular Wt:</b>	Predicted band size: 10 kDa
<b>Clone number:</b>	PSH24-96

**Description:** Fc fragment of IgE, high affinity I, receptor for; gamma polypeptide is gamma chain of high affinity IgE receptor. This protein is encoded by the FCER1G gene in humans. The high affinity IgE receptor, FcεRI, is a key molecule involved in allergic reactions. It is a tetramer composed of 1 alpha, 1 beta, and 2 gamma chains. The gamma chains are also subunits of other Fc receptors.

**Immunogen:** Recombinant protein within human FCER1G aa 31-86.

**Positive control:** THP-1 (Human acute monoclastic leukemia cell) cell lysate, RAW264.7 (Mouse monocytic macrophage leukemia cell) cell lysate.

**Subcellular location:** Cell membrane.

**Database links:** SwissProt: P30273 Human | P20491 Mouse | P20411 Rat

## Recommended Dilutions:

<b>WB</b>	1:5,000
<b>IF-Cell</b>	1:500
<b>IHC-P</b>	1:200-1:1,000
<b>FC</b>	1:1,000
<b>IP</b>	1-2µg/sample

**Storage Buffer:** 1\*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C long term.

**Purity:** Protein A affinity purified.

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## Images

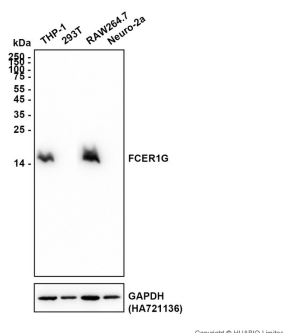
**Fig1:** Western blot analysis of FCER1G on different lysates with Rabbit anti-FCER1G antibody (HA724491) at 1/5,000 dilution.

Lane 1: THP-1 (Human acute monoblastic leukemia cell) cell lysate

Lane 2: 293T (Human embryonic kidney cell) cell lysate

Lane 3: RAW264.7 (Mouse monocytic macrophage leukemia cell) cell lysate

Lane 4: Neuro-2a (Mouse brain neuroblastoma cell) cell lysate



Lysates/proteins at 15 µg/Lane.

Exposure time: 7 seconds; ECL: K1801

Negative expression of FCER1G protein in 293T and Neuro-2a cells is consistent with the predicted expression pattern.

Blocking: 5% NFDM/TBST, 1 hour at room temperature

Primary antibody: HA724491, 1/5,000 in primary antibody dilution buffer (K1803), overnight at 4 °C

Secondary antibody: Goat anti-Rabbit IgG-HRP (HA1001), 1/50,000 in 5% NFDM/TBST, 1 hour at room temperature

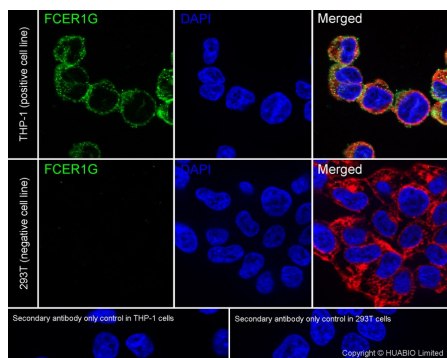
Predicted band size: 10 kDa

Observed band size: 12 kDa

**Fig2:** Application: Immunocytochemistry (IF-cell)

Species: Human

Sample: THP-1 (Human acute monoblastic leukemia cell)/293T (Human embryonic kidney cell)



Fixation: 4% Paraformaldehyde, 15 minutes at room temperature.

Permeabilization: 0.1% Triton X-100, 15 minutes at room temperature.

Blocking: 1% BSA + 10% normal goat serum, 1 hour at room temperature.

Antibody dilution buffer: 1% BSA in PBST.

Primary antibody: HA724491, 1/500, overnight at 4°C.

Secondary antibody: Goat Anti-Rabbit IgG (iFluor™ 488, HA1121), 45 minutes at room temperature.

Counterstain: Beta tubulin (HA601187, Red), 1/100, overnight at 4°C. The nuclear counterstain was DAPI (Blue).

Negative expression of FCER1G protein in 293T cell is consistent with the predicted expression pattern

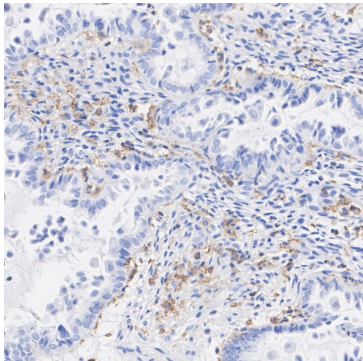
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**Fig3:** Application: Immunohistochemistry (IHC-P)

Species: Human

Tissue: Ovarian serous carcinoma

Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

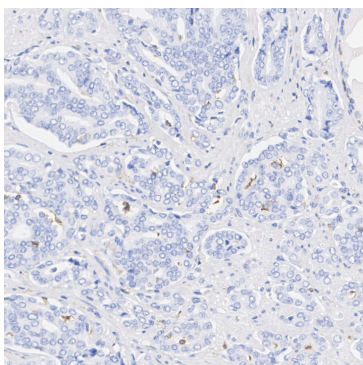
Wash buffer: 1× TBST

Endogenous peroxidase blocking: 3% H<sub>2</sub>O<sub>2</sub>, 10 minutes at room temperature.

Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.

Primary antibody: HA724491, 1/200, 1 hour at room temperature.

Secondary antibody: HA1119, 20 minutes at room temperature.



**Fig4:** Application: Immunohistochemistry (IHC-P)

Species: Human

Tissue: Prostate carcinoma

Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST

Endogenous peroxidase blocking: 3% H<sub>2</sub>O<sub>2</sub>, 10 minutes at room temperature.

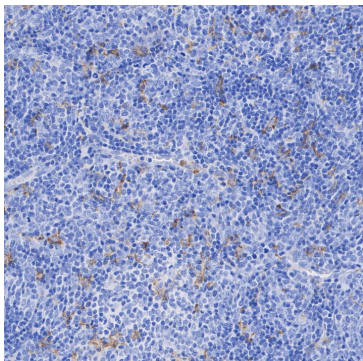
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.

Primary antibody: HA724491, 1/200, 1 hour at room temperature.

Secondary antibody: HA1119, 20 minutes at room temperature.

**Fig5:** Application: Immunohistochemistry (IHC-P)

Species: Human  
Tissue: Thymus  
Sample: Paraffin-embedded section

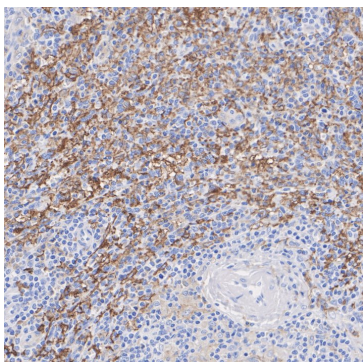


Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST  
Endogenous peroxidase blocking: 3% H<sub>2</sub>O<sub>2</sub>, 10 minutes at room temperature.  
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.  
Primary antibody: HA724491, 1/1,000, 1 hour at room temperature.  
Secondary antibody: HA1119, 20 minutes at room temperature.

**Fig6:** Application: Immunohistochemistry (IHC-P)

Species: Human  
Tissue: Spleen  
Sample: Paraffin-embedded section



Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

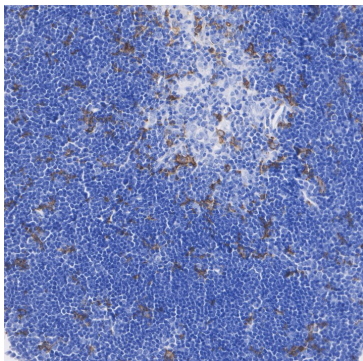
Wash buffer: 1× TBST  
Endogenous peroxidase blocking: 3% H<sub>2</sub>O<sub>2</sub>, 10 minutes at room temperature.  
Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.  
Primary antibody: HA724491, 1/1,000, 1 hour at room temperature.  
Secondary antibody: HA1119, 20 minutes at room temperature.

**Fig7:** Application: Immunohistochemistry (IHC-P)

Species: Mouse

Tissue: Thymus

Sample: Paraffin-embedded section



Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST

Endogenous peroxidase blocking: 3% H<sub>2</sub>O<sub>2</sub>, 10 minutes at room temperature.

Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.

Primary antibody: HA724491, 1/1,000, 1 hour at room temperature.

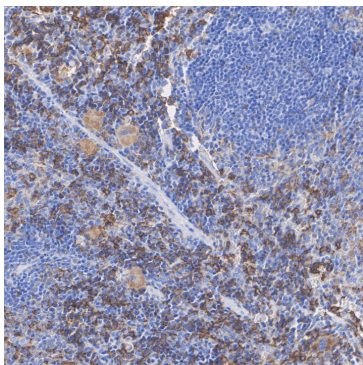
Secondary antibody: HA1119, 20 minutes at room temperature.

**Fig8:** Application: Immunohistochemistry (IHC-P)

Species: Mouse

Tissue: Spleen

Sample: Paraffin-embedded section



Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST

Endogenous peroxidase blocking: 3% H<sub>2</sub>O<sub>2</sub>, 10 minutes at room temperature.

Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.

Primary antibody: HA724491, 1/1,000, 1 hour at room temperature.

Secondary antibody: HA1119, 20 minutes at room temperature.

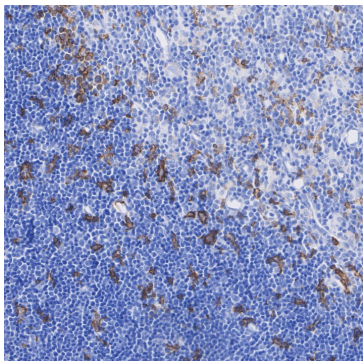
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**Fig9:** Application: Immunohistochemistry (IHC-P)

Species: Rat

Tissue: Thymus

Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

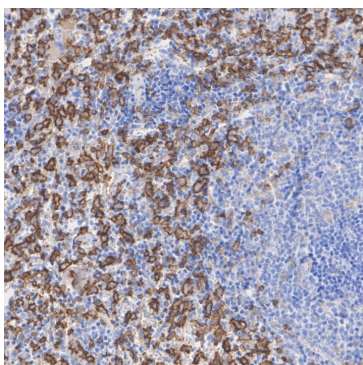
Wash buffer: 1× TBST

Endogenous peroxidase blocking: 3% H<sub>2</sub>O<sub>2</sub>, 10 minutes at room temperature.

Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.

Primary antibody: HA724491, 1/1,000, 1 hour at room temperature.

Secondary antibody: HA1119, 20 minutes at room temperature.



**Fig10:** Application: Immunohistochemistry (IHC-P)

Species: Rat

Tissue: Spleen

Sample: Paraffin-embedded section

Antigen retrieval: Heat-mediated, Tris-EDTA buffer (pH 9.0), 20 minutes at 95°C.

Wash buffer: 1× TBST

Endogenous peroxidase blocking: 3% H<sub>2</sub>O<sub>2</sub>, 10 minutes at room temperature.

Blocking: 1% BSA + 10% normal goat serum, 10 minutes at room temperature.

Primary antibody: HA724491, 1/1,000, 1 hour at room temperature.

Secondary antibody: HA1119, 20 minutes at room temperature.

**Fig11:** Application: Flow Cytometry (Intra)

Species: Human

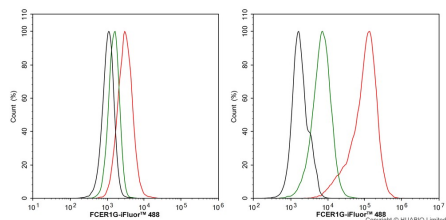
Sample: THP-1 (Human acute monoblastic leukemia cell)/293T (Human embryonic kidney cell)

Fixation: 4% Paraformaldehyde, 15 minutes at room temperature.

Permeabilization: 0.1% Tween-20, 15 minutes at room temperature.

Blocking: 1% BSA + 10% normal goat serum, 15 minutes at room temperature.

Antibody dilution buffer: 1x PBS.



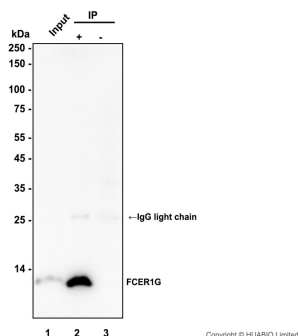
Primary antibody: HA724491(1/1,000, Red) compared with Rabbit IgG Isotype Control (HA722127, Green), 15 minutes at room temperature.

Secondary antibody: Goat Anti-Rabbit IgG (iFluor™ 488, HA1121), 15 minutes at room temperature.

Negative expression of FCER1G protein in 293T cell is consistent with the predicted expression pattern

**Fig12:** Immunoprecipitation (IP)

FCER1G was immunoprecipitated in 0.2 mg THP-1 (Human acute monoblastic leukemia cell) cell lysate with HA724491 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA724491 at 1/5,000 dilution. Anti-Rabbit IgG for IP Nano-secondary antibody (NBI01H) at 1/5,000 dilution was used for 1 hour at room temperature.



Lane 1: THP-1 cell lysate (input)

Lane 2: HA724491 IP in THP-1 cell lysate

Lane 3: Rabbit IgG instead of HA724491 in THP-1 cell lysate

Exposure time: 46 seconds

Blocking: 5% NFDM/TBST, 1 hour at room temperature

Primary dilution: HA724491, 1/5,000 in primary antibody dilution buffer (K1803), 2 hours at room temperature

Predicted band size: 10 kDa

Observed band size: 12 kDa

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**Note:** All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

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### Background References

1. Podgórska D et al. FCER1G Gene Hypomethylation in Patients with Rheumatoid Arthritis. J Clin Med. 2022 Aug
2. Hu Y et al. FCER1G as a novel immune-associated blood biomarker in cardiogenic stroke. Heliyon. 2024 Jun

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