# Anti-DFNA5 / GSDME Antibody [PSH10-84]

### **HA723251**

Product Type: Recombinant Rabbit monoclonal IgG, primary antibodies

Species reactivity: Human, Mouse

Applications: WB, IP

Molecular Wt: Predicted band size: 55 kDa

Clone number: PSH10-84

**Description:** Non-syndromic hearing impairment protein 5 is a protein that in humans is encoded by the

DFNA5 gene. Hearing impairment is a heterogeneous condition with over 40 loci described. The protein encoded by this gene is expressed in fetal cochlea, however, its function is not known. Nonsyndromic hearing impairment is associated with a mutation in this gene. The observation that DFNA5 is epigenetically inactivated in a large number of cancers of frequent types (gastric, colorectal, and breast) is another important finding and is in line with its apoptosis-inducing properties. Indeed, if apoptosis is an intrinsic feature of DFNA5, shutting the gene down in tumor cells makes them more susceptible to uncontrolled cellular growth. Moreover, the fact that DFNA5 is regulated by P53 strongly suggests that DFNA5 is

a tumor suppressor gene.

**Immunogen:** Recombinant protein within human GSDME aa 1-496.

Positive control: SH-SY5Y cell lysate, SH-SY5Y treated with 4µg/mL Doxorubicin for 24 hours cell lysate.

Subcellular location: Cytoplasm, cytosol.

Database links: SwissProt: O60443 Human | Q9Z2D3 Mouse

**Recommended Dilutions:** 

WB 1:2,000IP 1-2μg/sample

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4 ℃ after thawing. Aliquot store at -20 ℃. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

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#### **Images**

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**Fig1:** Western blot analysis of DFNA5 / GSDME on different lysates with Rabbit anti-DFNA5 / GSDME antibody (HA723251) at 1/2,000 dilution.

Lane 1: SH-SY5Y cell lysate

Lane 2: SH-SY5Y treated with 4µg/mL Doxorubicin for 24 hours

cell lysate

Lane 3: SW480 cell lysate (negative)

Lysates/proteins at 20 µg/Lane.

Predicted band size: 55 kDa Observed band size: 55/30 kDa

Exposure time: 3 minutes; ECL: K1801;

4-20% SDS-PAGE gel.

**Fig2:** Western blot analysis of DFNA5 / GSDME on different lysates with Rabbit anti-DFNA5 / GSDME antibody (HA723251) at 1/2,000 dilution.

Lane 1: 293T transfected with empty control cell lysate

Lane 2: 293T transfected with mouse GSDME (N-terminal) cell

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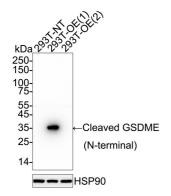
Lane 3: 293T transfected with mouse GSDME (C-terminal) cell

lysate

Lysates/proteins at 10 µg/Lane.

Exposure time: 40 seconds; ECL: K1801;

4-20% SDS-PAGE gel.



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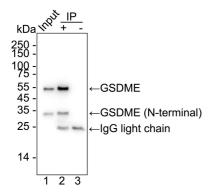


Fig3: DFNA5 / GSDME was immunoprecipitated from 0.2 mg SH-SY5Y treated with 4 $\mu$ g/mL Doxorubicin for 24 hours cell lysate with HA723251 at 2  $\mu$ g/10  $\mu$ l beads. Western blot was performed from the immunoprecipitate using HA723251 at 1/1,000 dilution. Mouse Anti-Rabbit IgG kappa light chain secondary antibody (M1208-2) at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: SH-SY5Y treated with 4µg/mL Doxorubicin for 24 hours cell lysate (input)

Lane 2: HA723251 IP in SH-SY5Y treated with  $4\mu g/mL$  Doxorubicin for 24 hours cell lysate

Lane 3: Rabbit IgG instead of HA723251 in SH-SY5Y treated with  $4\mu g/mL$  Doxorubicin for 24 hours cell lysate

Blocking/Dilution buffer: 5% NFDM/TBST Exposure time: 10 seconds; ECL: K1801

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

### **Background References**

- 1. Wei Y et al. GSDME-mediated pyroptosis promotes the progression and associated inflammation of atherosclerosis. Nat Commun. 2023 Feb
- 2. Ai YL et al. Mannose antagonizes GSDME-mediated pyroptosis through AMPK activated by metabolite GlcNAc-6P. Cell Res. 2023 Dec