# Anti-Mast Cell Tryptase Antibody [SC68-07] ET1610-64

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|--|-----------------------|---|--|--|
| Applications: WB, IHC-P, IP, mIHC   Molecular Wt: Predicted band size: 30 kDa   Clone number: SC68-07   Description: Mast cells are connective tissue cells derived from blood-forming tissues that line art<br>walls and secrete substances, which mediate inflammatory and immune responses. Mast<br>chymase, known as CMA1, is a major secreted serine protease that is involve<br>vasoactive peptide generation, extracellular matrix degradation and regulation of g<br>secretion. The human chymase gene, which maps to human chromosome 14q11.2, ence<br>a preproenzyme with a 19-arnino acid signal peptide, an acidic 2-arnino acid propeptide<br>a 226-arnino acid catalytic domain. Tryptases comprise a family of trypsin-like se<br>proteases that are enzymatically active as heparin-stabilized tetramers. There are<br>functional genes for tryptase: α I, β I, β II and γ I, which map to human chromos<br>16p13.3, with β tryptases representing the main iscenzymes expressed in mast cells. I<br>cell proteases are a family of rodent protein homologs to human tryptases that<br>specifically expressed in mast cells and may serve as highly specific markers in the ana<br>of mast cell heterogeneity. differentiation and function.   Immunogen: Recombinant protein within Human Mast Cell Tryptase aa 10-275 / 275.   Positive control: Human lung tissue lysates, mouse skin tissue lysates, human lung tissue, human th<br>tissue, human small intestine tissue, human protate carcinoma tissue.   Subcellular location: Secreted.   Database links: SwissProt: Q15661 Human   Q02844 Mouse   Recommended Dilutions: WB 11,000 11 <th< td=""><td>Product Type:</td><td colspan="2">Recombinant Rabbit monoclonal IgG, primary antibodies</td></th<>   | Product Type:         | Recombinant Rabbit monoclonal IgG, primary antibodies   |  |  |
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| Purity: Protein A affinity purified.   | Storage Instruction:  | Shipped at $4^{\circ}$ C. Store at $+4^{\circ}$ C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20 $^{\circ}$ C long term.  |  |  |
|  | Purity:               | Protein A affinity purified.  |  |  |

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

#### Images

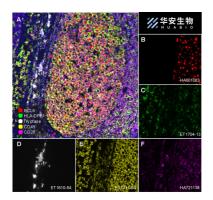


Fig1: Fluorescence multiplex immunohistochemical analysis of Human tonsil (Formalin/PFA-fixed paraffin-embedded sections). Panel A: the merged image of anti-BCL6 (HA601083, Red), anti-HLA-DPB1 (ET1704-13, Green), anti-Tryptase (ET1610-64, White), anti-CD20 (HA721138, Magenta) and anti-CD45 (ET7111-03, Yellow) on tonsil. HRP Conjugated UltraPolymer Goat Polyclonal Antibody HA1119/HA1120 was used as a secondary antibody. The immunostaining was performed with the Sequential Immuno-staining Kit (IRISKit™MH010101, www.luminiris.cn). The section was incubated in five rounds of staining: in the order of HA601083 (1/200 dilution), ET1704-13 (1/2,000 dilution), ET1610-64 (1/5,000 dilution), HA721138 (1/2,000 dilution) and ET7111-03 (1/500 dilution) for 20 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95°C. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

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| э *<br>НА601114           | HA721246 | ET 1610-64  |

Fig2: Fluorescence multiplex immunohistochemical analysis of Human tonsil (Formalin/PFA-fixed paraffin-embedded sections). Panel A: the merged image of anti-CD14 (ET1610-85, Red), anti-CD4 (ET1609-52, Green), anti-CD57 (HA601114, White), anti-CD15 (HA721246, Cyan) and anti-Tryptase (ET1610-64, Magenta) on tonsil. Panel B: anti- CD14 stained on monocytes. Panel C: anti-CD4 stained on helper T cells and Treg cells. Panel D: anti-CD57 stained on NK cells and T cells. Panel E: CD15 stained on granulocytes and monocytes. Panel F: anti-Tryptase stained on Mast cells. HRP Conjugated UltraPolymer Goat Polyclonal Antibody HA1119/HA1120 was used as a secondary antibody. The immunostaining was performed with the Sequential Immuno-staining Kit (IRISKit™MH010101, www.luminiris.cn). The section was incubated in five rounds of staining: in the order of ET1610-85 (1/800 dilution), ET1609-52 (1/800 dilution), HA601114 (1/1,000 dilution), HA721246 (1/500 dilution), and ET1610-64 (1/3,000 dilution) for 20 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95℃. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

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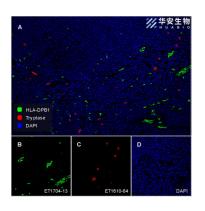


Fig3: Fluorescence multiplex immunohistochemical analysis of human tonsil (Formalin/PFA-fixed paraffin-embedded sections). Panel A: the merged image of anti-HLA-DBP1 (ET1704-13, Green) and anti-Tryptase (ET1610-64, Red) on tonsil. HRP Conjugated UltraPolymer Goat Polyclonal Antibody HA1119/HA1120 was used as a secondary antibody. The immunostaining was performed with the Sequential Immunostaining Kit (IRISKit™MH010101, www.luminiris.cn). The section was incubated in two rounds of staining: in the order of ET1704-13 (1/2,000 dilution) and ET1610-64 (1/5,000 dilution) for 20 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95℃. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Zeiss Observer 7 Inverted Fluorescence Microscope.

**Fig4:** Western blot analysis of Mast Cell Tryptase on different lysates with Rabbit anti-Mast Cell Tryptase antibody (ET1610-64) at 1/1,000 dilution.

Lane 1: Human lung tissue lysate (40 µg/Lane) Lane 2: Mouse skin tissue lysate (40 µg/Lane)

Predicted band size: 30 kDa Observed band size: 35 kDa

Exposure time: 59 seconds; ECL: K1801; 4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1610-64) at 1/1,000 dilution was used in 5% NFDM/TBST at  $4^{\circ}$ C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

**Fig5:** Immunohistochemical analysis of paraffin-embedded human lung tissue with Rabbit anti-Mast Cell Tryptase antibody (ET1610-64) at 1/10,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1610-64) at 1/10,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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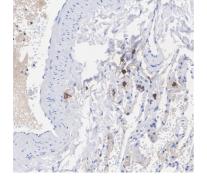
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Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

#### **Background References**

- 1. De Martin S et al. Expression and distribution of the adrenomedullin system in newborn human thymus. PLoS One 9:e97592 (2014).
- 2. Edmunds MC et al. Paradoxical effects of heme arginate on survival of myocutaneous flaps. Am J Physiol Regul Integr Comp Physiol 306:R10-22 (2014).

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