

Product datasheet for **DM1227**

IL13 receptor alpha 1 (IL13RA1) (Extracell. Dom.) Mouse Monoclonal Antibody [Clone ID: GM1E7]

Product data:

| | |
|-----------------------|---|
| Product Type: | Primary Antibodies |
| Clone Name: | GM1E7 |
| Applications: | ELISA, FC, IF |
| Recommended Dilution: | Cell based ELISA with intact, transiently transfected cells: 1/200-1/400. Flow cytometry: 1.2 µg/10 ⁶ cells. Immunofluorescence: 1 µg/10 ⁶ cells. Specific inhibition of IL-13-dependent proliferation of TF-1 cells by GM-1E7 (see Figure.3). |
| Reactivity: | Human |
| Host: | Mouse |
| Isotype: | IgG1 |
| Clonality: | Monoclonal |
| Immunogen: | Genetic immunization with cDNA encoding Human IL13-R alpha 1 (extracellular domain). Selection: Based on recognition of the complete native protein expressed on transfected mammalian cells. |
| Specificity: | Recognizes IL13 Receptor (IL13-R). |
| Formulation: | Phosphate buffered saline, pH 7.2 without preservatives State: Purified State: Liquid purified Ig fraction |
| Concentration: | lot specific |
| Purification: | Affinity Chromatography on Protein G |
| Conjugation: | Unconjugated |
| Storage: | Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. |
| Stability: | Shelf life: one year from despatch. |
| Gene Name: | interleukin 13 receptor subunit alpha 1 |
| Database Link: | Entrez Gene 3597 Human P78552 |



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Background: Interleukin 13 (IL-13) is a T cell derived cytokine involved in the regulation of inflammatory and immune responses. IL-13Ra1 together with IL-4Ra forms a functional receptor for both IL-4 and IL-13, which is why these two cytokines share many of their biological activities. The receptor is found on human B cells, monocytes and endothelial cells. However, no functional receptor is expressed on T cells, which explains why IL-13, in contrast to IL-4, fails to induce TH2-cell differentiation

Synonyms: Interleukin-13 receptor alpha-1 chain, IL-13R-alpha-1, IL-13RA-1, IL13R, IL13RA, IL13 receptor alpha, CT19

Note: **SDS-PAGE analysis:** The antibody was purified by Protein G Affinity Chromatography from cell culture supernatants and verified by SDS-Page (**Figure.4**).

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway

Product images:

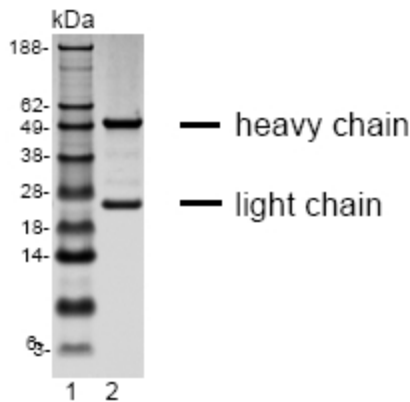


Figure 4: SDS-PAGE analysis of purified GM-1E7 monoclonal antibody. Lane 1: Molecular weight marker, Lane 2: 2 ug of purified GM-1E7 antibody. Proteins were separated by SDS-PAGE and stained with RAPID Stain™ Reagent.

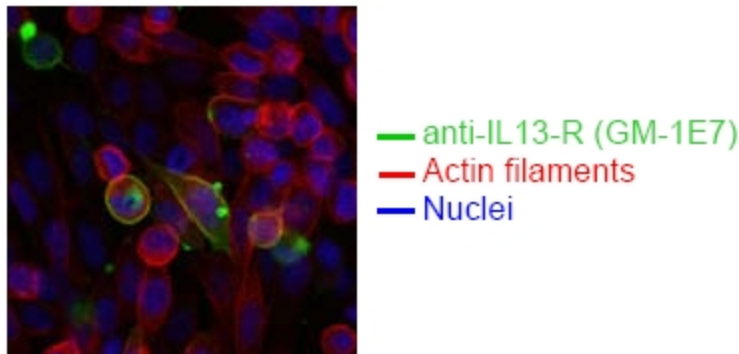


Figure 2: Spectral Confocal Microscopy of CHO cells using GM-1E7 antibody. CHO cells were transiently transfected with an expression vector encoding IL13-R. Binding of GM-1E7 was visualized with a FITC-conjugated secondary antibody (green). Actin filaments are labeled with Alexa Fluor-555 Phalloidin (Red). Cell nuclei are stained with DAPI (Blue).

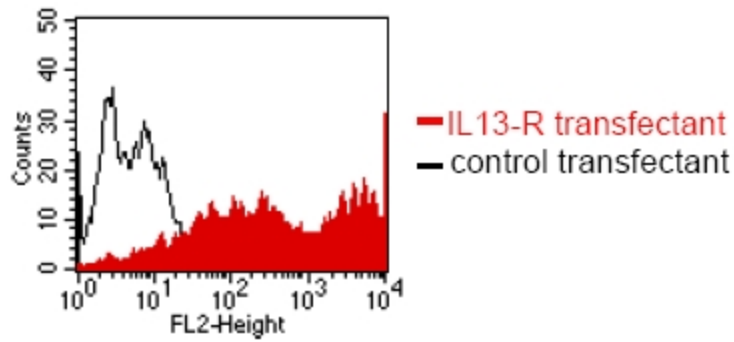


Figure 1: FACS analysis of BOSC23 cells using GM-1E7 antibody. BOSC23 cells were transiently transfected with an expression vector encoding either IL13-R (Red curve) or an irrelevant protein (control transfectant: black curve). Binding of GM-1E7 was detected with a PE-conjugated secondary antibody. A positive signal was obtained only with IL13-R transfected cells.

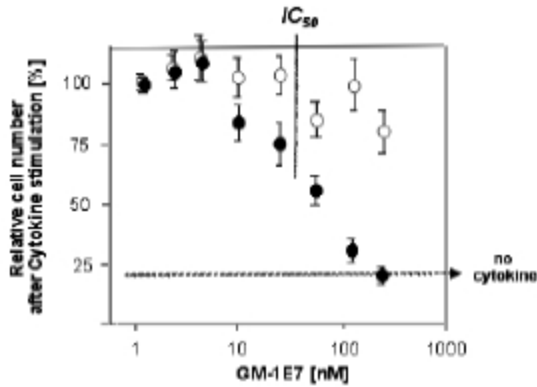


Figure 3: Antagonistic Properties of GM-1E7 Dose-dependent inhibition of cellular proliferation. Samples of TF-1 cells were incubated for 72 h with 10 nM human IL-13 (closed circles) or 10 nM Human IL-4 (open circles) plus the indicated concentrations of purified GM-1E7. Antibody GM1E7 blocks IL-13-dependent cell proliferation completely, but only marginally influences IL-4-activity on TF-1 cells.