

GM-CSF (E8I1V) Rabbit mAb

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Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 15, 18, 22	Source/Isotype: Rabbit IgG	UniProt ID: #P04141	Entrez-Gene Id: 1437
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

GM-CSF (E8I1V) Rabbit mAb recognizes endogenous levels of total GM-CSF protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro29 of human GM-CSF protein.

Background

GM-CSF is produced by activated T cells, NK cells and macrophages (1,5). Target cells include granulocyte, monocyte precursors and subsets of differentiated myeloid cells (1,2,3). Many target cells require GM-CSF for survival. GM-CSF induces proliferation, is involved in hematopoietic differentiation of dendritic cells, and is a key factor in differentiation pathways leading from stem cells. GM-CSF activates effector functions of myeloid cells, thereby linking adaptive and innate immunity and in turn may boost anti-tumor immunity (4). GM-CSF receptor is composed of GM-CSFR α and the common β chain, β C, which is also utilized by IL-3 and IL-5 (1). Binding of GM-CSF initiates the Jak2, Stat5, and PI3K/Akt pathways (1).

Background References

1. Guthridge, M.A. et al. (1998) *Stem Cells* 16, 301-13.
2. Sonoda, Y. et al. (1988) *Proc Natl Acad Sci U S A* 85, 4360-4.
3. Sonoda, Y. et al. (1988) *Blood* 72, 1381-6.
4. de la Cruz-Merino, L. et al. (2008) *Oncologist* 13, 1246-54.
5. Zhang, A.L. et al. (2007) *Blood* 110, 2484-93.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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