

Product No. R-6392
Lot 074H0538

Anti-Human RANTES
Developed in Goat
IgG Fraction of Antiserum

Anti-Human RANTES is developed in goat using man, human, recombinant RANTES, expressed in *E. coli*, as the immunogen. The product is purified by Protein G affinity chromatography. Goat Anti-Human RANTES is provided lyophilized from phosphate buffered saline, (PBS) pH 7.4, to which no preservatives have been added.

Description

RANTES (Regulated on Activation, Normal T cell expressed and Secreted) is a member of the chemokine superfamily platelet factor 4 (PF4).¹ This chemokine superfamily is characterized by four positionally-conserved cysteine residues and has been subdivided according to the position of the first two cysteines into two branches, the chemokine α family and the chemokine β family. RANTES is a member of the chemokine β family and is also known as hSIS δ .²

Anti-Human RANTES neutralizes the bioactivity of recombinant, human RANTES. In indirect ELISA and immunoblotting, this antibody does not cross-react with other chemokines including recombinant, human IL-8, recombinant, human GRO α , recombinant, human MIP-1 α , recombinant, human MIP-1 β , recombinant, mouse MIP-1 α , recombinant, mouse MIP-1 β and recombinant, human MCP-1.

Performance

Anti-Human RANTES was tested for its ability to neutralize the bioactivity of recombinant, human RANTES in a chemotaxis assay using human mononuclear cells.³ The ND₅₀ of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of bioactivity of recombinant, human RANTES, that is present at five times its own EC₅₀ (the concentration of recombinant, human RANTES producing a one-half maximal bioactivity without antibody).

In this bioassay, recombinant, human RANTES was pre-incubated with various dilutions of the antibody for 1 hour at 37° C in a 96-well microtiter plate. Then, 35 μ l of the assay mixture was transferred to the lower compartment of a 96-well chemotaxis chamber. Using a PVP-free polycarbonate filter, the chamber was assembled and 1x10⁶ purified human mononuclear cells were added to each well of the top chamber. This was incubated for 90 minutes at 37° C in a 5% CO₂ humidified incubator. The filter was removed, fixed and stained. The absorbance was read at 540 nm.

Product Information

Mass/vial:	1 mg
Immunogen:	Recombinant, human RANTES
Host animal:	Goat
Formulation:	Lyophilized from PBS without additives
Endotoxin:	<10 ng/vial by LAL method
Bioactivity:	ND ₅₀ = 70 μ g/ml
Indirect ELISA:	0.5 μ g/ml detects 1 ng/well of recombinant, human RANTES.
Indirect	
Immunoblotting:	1 μ g/ml antibody detects 0.5 ng/lane of recombinant, human RANTES under non-reducing conditions.
Sterility:	0.2 μ m-filtered, aseptic fill

Reconstitution and Use

To one vial of lyophilized powder, add 1 ml of 0.2 μ m-filtered PBS to produce a 1 mg/ml stock solution of Anti-Human RANTES. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Storage

Prior to reconstitution, product maybe stored at -20°C for 6 months. Reconstituted product may be stored at $0-5^{\circ}\text{C}$ for up to one month. For prolonged storage, freeze in working aliquots at -20°C . Avoid repeated freezing and thawing.

References

1. Staeckle, M., et al., *New Biol.*, **2**, 313 (1990).
2. Brown, K., et al., *J. Immunol.*, **142**, 679 (1989).
3. Schall, T., et al., *Nature*, **347**, 669 (1990).

Prepared for Sigma.