Interleukin-3 receptor alpha: Interleukin-3 binds IL3RB:JAK2

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Introduction

Reactome is open-source, open access, manually curated and peer-reviewed pathway database. Pathway annotations are authored by expert biologists, in collaboration with Reactome editorial staff and cross-referenced to many bioinformatics databases. A system of evidence tracking ensures that all assertions are backed up by the primary literature. Reactome is used by clinicians, geneticists, genomics researchers, and molecular biologists to interpret the results of high-throughput experimental studies, by bioinformaticians seeking to develop novel algorithms for mining knowledge from genomic studies, and by systems biologists building predictive models of normal and disease variant pathways.

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Literature references


Reactome database release: 83

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The alpha subunit of the IL3 receptor binds IL 3 with low affinity. Binding of this dimer to the common beta subunit (Bc) confers high affinity binding. Recent models of receptor activation suggest a sequential activation that is initiated by the low-affinity interaction of ligand with the alpha chain to form a binary complex. This binary complex is then able to bind preformed Bc dimers generating a 2:2:2 hexameric complex (Hansen et al. 2008). Covalent linkage of the receptor subunits is required for receptor signalling (Stomski et al. 1996).

### Literature references
