

Cell Type and Cell Product	Role in Asthma Pathogenesis
Eosinophils	
IL-12, IFN γ , CXCL10, RANTES/CCL5	TH1 response
IL-4, 5, 13	TH2 response
IL-10	Inhibition of immune response
Leukotrienes	Inflammation
TGF β	Fibrosis and remodeling
Mast Cells	
IL-4, 5, 13	TH2 response
TNF α , TGF β , FGF, tryptase, chymase	Airway remodeling
Neutrophils	
IL-8, GM-CSF, G-CSF	Recruitment and expansion of inflammatory cells
Proteases, oxygen free radicals	Tissue damage
TNF α , IL-1	Inflammation
TGF β , VEGF	Airway remodeling
Epithelial cells	
Adhesion molecules (ICAM-1)	Recruitment of inflammatory cells
IL-8, MCP-1, RANTES/CCL5, eotaxin, GM-CSF	Recruitment and expansion of inflammatory cells
IL-4, 5, 13	TH2 response
IL-10	Inhibition of immune response
Leukotrienes	Inflammation
TGF β	Fibrosis and remodeling
EGFR	Airway remodeling
Macrophages	
MIP-1, GM-CSF, TNF α , IL8	Recruitment and expansion of inflammatory cells
IL-12, IFN γ	TH1 response
IL-10	Inhibition of immune response
Prostaglandins	Inflammation
Lymphocytes	
IL-4, 5, 13	TH2 response
IFN γ	TH1 response
IL-2	Lymphocyte proliferation and development
IgE	Allergic response

IL – interleukin, IFN γ – interferon-gamma, CCL5 – chemokine (C-C motif) ligand 5, GM-SCF – granulocyte monocyte colony stimulating factor, G-CSF – granulocyte colony stimulating factor, TNF α – tumor necrosis factor alpha, TGF β – transforming growth factor beta, VEGF – vascular endothelial growth factor, ICAM-1 – Intercellular Adhesion Molecule – 1, MCP-1 – monocyte chemotactic protein 1, EGFR – epidermal growth factor receptor, FGF – fibroblast growth factor, MIP – macrophage inflammatory protein, IgE – immunoglobulin E.