CD24 Extracellular Domain-IgG1 Fc Domain Recombinant Fusion Protein CD24Fc (CUI CL504552)

Terms & Properties

Concept Unique Identifier (CUI): CL504552

NCI Thesaurus Code: C125903 (see NCI Thesaurus info)

Semantic Type: Pharmacologic Substance

Semantic Type: Amino Acid, Peptide, or Protein

NCIt Definition: A recombinant fusion protein composed of the extracellular domain of the mature human glycoprotein CD24 linked to a human immunoglobulin G1 (IgG1) Fc domain, with potential immune checkpoint inhibitory, anti-inflammatory and antineoplastic activities. Upon administration, the CD24 extracellular domain-IgG1 Fc domain recombinant fusion protein CD24Fc binds to injured cell components, also called DAMPs (Danger-Associated Molecular Patterns), thereby preventing the interaction of DAMPs with toll-like receptors (TLRs) and inhibiting both nuclear factor-kappa B (NFkB) activation and secretion of inflammatory cytokines. In addition, CD24Fc binds to and activates Siglec G/10, a sialic acid-binding immunoglobulin-type lectin, and stimulates SHP-1-mediated inhibitory signaling, while also preventing NFkB activation and secretion of inflammatory mediators, which further prevents inflammatory responses. DAMPs activate the innate immune system. CD24 binds to both DAMPs and Siglec G/10 to regulate immune responses.CD24/Siglec G/10 interaction plays a key role in a number of immune-mediated diseases including graft-versus-host disease (GvHD), multiple sclerosis and rheumatoid arthritis.

PDQ Definition: A recombinant fusion protein composed of the extracellular domain of the mature human glycoprotein CD24 linked to a human immunoglobulin G1 (IgG1) Fc domain, with potential immune checkpoint inhibitory, anti-inflammatory and antineoplastic activities. Upon administration, the CD24 extracellular domain-IgG1 Fc domain recombinant fusion protein CD24Fc binds to injured cell components, also called DAMPs (Danger-Associated Molecular Patterns), thereby preventing the interaction of DAMPs with toll-like receptors (TLRs) and inhibiting both nuclear factor-kappa B (NFkB) activation and secretion of inflammatory cytokines. In addition, CD24Fc binds to and activates Siglec G/10, a sialic acid-binding immunoglobulin-type lectin, and stimulates SHP-1-mediated inhibitory signaling, preventing NFkB activation and secretion of inflammatory mediators, which further prevents inflammatory responses. DAMPs activate the innate immune system. CD24 binds to both DAMPs and Siglec G/10 to regulate immune responses.CD24/Siglec G/10 interaction plays a key role in a number of immune-mediated diseases including graft-versus-host disease (GvHD), multiple sclerosis and rheumatoid arthritis. Check for active clinical trials using this agent. (NCI Thesaurus)

Synonyms & Abbreviations: (see Synonym Details)

CD24 Extracellular Domain-IgG1 Fc Domain Recombinant Fusion Protein CD24Fc
CD24Fc CD24IgG
CD24Fc

External Source Codes:

NCI Thesaurus Code	C125903 (see NCI Thesaurus info)
PDQ Closed Trial Search ID	778856
PDQ Open Trial Search ID	778856 (check for NCI PDQ open clinical trial info)

Other Properties:

Name	Value	Source
Contributing_Source	CTRP	NCI
DATE_FIRST_PUBLISHED	2016-02-16	PDQ
DATE_LAST_MODIFIED	2016-05-17	PDQ
NCI_THESAURUS_CODE	C125903	PDQ
ORIG_STY	Drug/agent	PDQ

Additional Concept Data: *(none)*

URL to Bookmark: https://ncim.nci.nih.gov/ncimbrowser/ConceptReport.jsp?dictionary=NCI Metathesaurus&code=CL504552