

SUMMARY OF PRODUCT

STRUCTURE

Cinnapoitin, is a recombinant human Erythropoietin beta, has four acidic oligosaccharide side chains (3 N-linked asparagine and one O- linked serine glycosylation site).

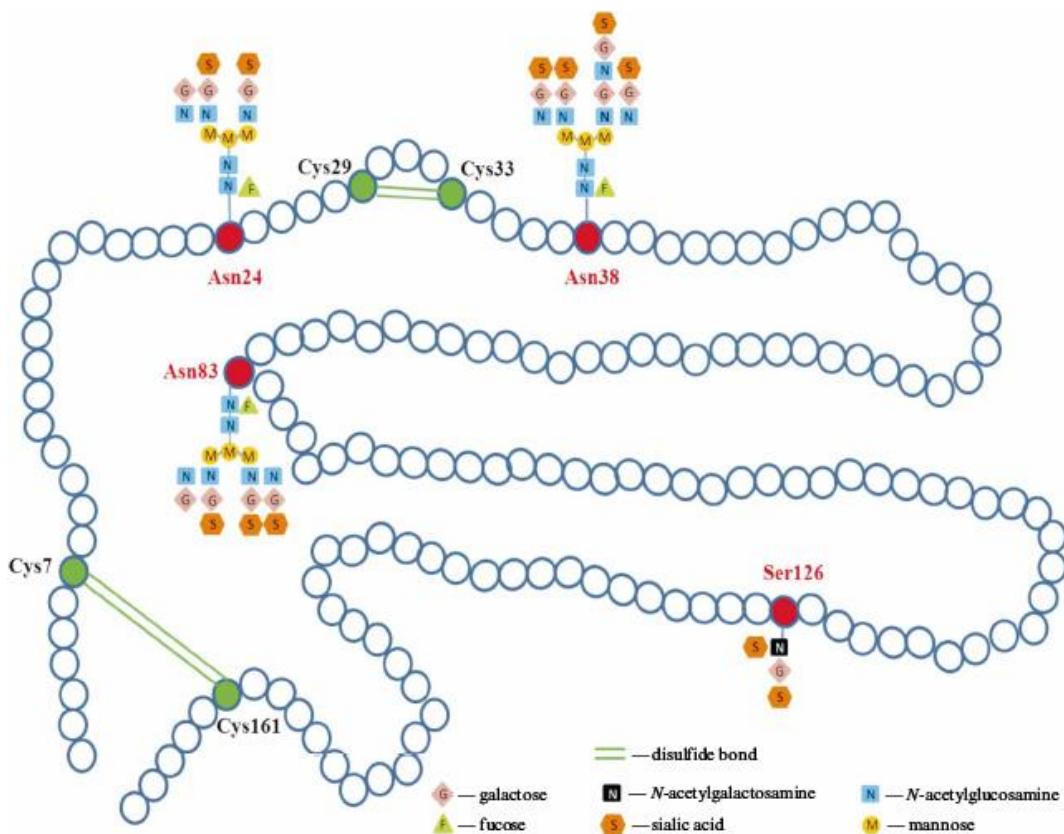
Cinnapoitin is produced by recombinant DNA technology in a mammalian CHO (Chinese hamster ovary) that contain human Erythropoietin gene and have the same amino acid sequence in comparison with natural erythropoietin (urinary).

The total molecular weight of Cinnapoitin is ~30 kDa, consist of 165 amino acids with two disulfide bonds.

Amino Acid Sequence of Cinnapoitin

Erythropoietin beta consists of 165 amino acids as follows:

10	20	30	40	50	60	
MGVHECPAWL	WLLLSLLSLP	LGLPVLGAPP	RLICDSRVLE	RYLLEAKEAE	NITTGCAEHC	
70	80	90	100	110	120	
SLNENITVPD	TKVNFYAWKR	MEVGQQAVEV	WQGLALLSEA	VLRGQALLVN	SSQPWEPLQL	
130	140	150	160	170	180	
HVDKAVSGLR	SLTLLRALG	AQKEAISPPD	AASAAPLRTI	TADTFRKLFR	VYSNFLRGKL	
		190				
		KLYTGEACRT	GDR			



Primary structure of Erythropoietin with showing Glycosylation sites and disulfide bands

Nomenclature information of Epoietin beta.

Recommended International Nonproprietary Name (INN)	Epoietin beta
Anatomical Therapeutic Chemical (ATC) code	B03XA01
Chemical Name	1-165-Erytropoietin (human clone t HEPOFL 13 protein moiety), glycoform β
Chemical Abstracts Service (CAS) registry number	122312-54-3
Molecular Formula	C809-H1301-N229-O240-S5
Molecular weight	\sim 30 KDa

Name of the medicinal product

Cinnapoietin 2000IU/0.3mL solution for injection in prefilled syringe

Cinnapoietin 4000IU/0.3mL solution for injection in prefilled syringe

Cinnapoietin 10000IU/0.6mL solution for injection in prefilled syringe

Reference Product

Neorecormon from Roche

Quantitative and Qualitative composition

- Each 0.3 mL Cinnapoietin 2000IU contains 16 mcg of Epoietin beta
- Each 0.3 mL Cinnapoietin 4000IU contains 32 mcg of Epoietin beta
- Each 0.6 mL Cinnapoietin 10000IU contains 80 mcg of Epoietin beta

Each syringe of Cinnapoietin consist of Sodium chloride, Monobasic Sodium phosphate dehydrate, Dibasic Sodium phosphate dehydrate, Calcium chloride dehydrate, Glycine, Polysorbate20, Leucine, Isoleucine, Threonine, Glutamic acid, Phenylalanine and Water for injections.

Therapeutic indications

- Symptomatic anaemia associated with chronic renal failure in adult and paediatric patients
- Symptomatic anaemia in adult patients with non-myeloid malignancies receiving chemotherapy
- Increasing the yield of autologous blood from patients in a pre-donation program
- Moderate anaemia (Hb 10 - 13 g/dl [6.21 - 8.07 mmol/l], no iron deficiency)

Pharmacological properties

Pharmacotherapeutic group: antianemic, ATC code: B03XA01

Route of Administration

SC and IV