

C-Peptide (Dog)

Subcategory: Synthetic Peptide

Cat. No.: 350135

Unit: 1 mg

Description:

The connecting peptide, or C-peptide, is a 31-aa long peptide that connects insulin A-chain to the B-chain in the proinsulin molecule. In the insulin synthesis pathway, preproinsulin is translocated into the endoplasmic reticulum of beta cells of the pancreas with an A-chain, a C-peptide, a B-chain, and a signal sequence. After signal sequence cleavage, the C-peptide is removed from the newly formed proinsulin in the Golgi apparatus leaving the A- and B-chains bound together by disulfide bonds, forming the insulin molecule. Besides a role in assembly, folding, and processing of insulin in the ER, the C-peptide is a bioactive peptide with effects on microvascular blood flow and tissue health. Because equimolar amounts of C-peptide are stored in secretory granules of the pancreatic beta cells and eventually released in the circulation, C-peptide is a marker of insulin secretion in understanding the pathophysiology of type 1 and type 2 diabetes.

Format: Each vial contains 1 mg of lyophilized solid packaged under an inert gas and supplied as a trifluoroacetate salt.

Alternate Names: C-peptide; insulin; INS

Accession No.: P01321

MW: 3174.54 g/mol

Sequence: Dog: H-Glu-Val-Glu-Asp-Leu-Gln-Val-Arg-Asp-Val-Glu-Leu-Ala-Gly-Ala-Pro-Gly-Glu-Gly-Gly-Leu-Gln-Pro-Leu-Ala-Leu-Glu-Gly-Ala-Leu-Gln-OH or H-EVEDLQVRDVELAGAPGEGGLQPLALEGALQ-OH

Composition: C137H225N37O49

Purity: Purity > 95% by HPLC

Solubility: Distilled water for a solution up to 2 mg/ml, otherwise we recommend using acetonitrile.

Storage: Store at -20°C. The product is hygroscopic and must be protected from light. Product is guaranteed one year from the date of shipment. Following reconstitution, aliquot and store at -20°C.

For research use only, not for diagnostic or therapeutic procedures.