

Insulin-like growth factor binding protein-4 (IGFBP-4) and its fragments

IGFBP-4 has been shown to be a substrate for dPAPP-A (Figure 1). dPAPP-A is a promising marker for predicting plaque rupture which, in turn, may lead to acute thrombosis. However, measuring dPAPP-A concentrations reliably is challenging due to many reasons (Terkelsen et al., 2009, Tertti et al., 2009). Quantifying N- and C-terminal IGFBP-4 fragments (NT-IGFBP-4 and CT-IGFBP-4, respectively) that are the result of dPAPP-A cleavage instead of dPAPP-A could be used as an indirect but more reliable method for obtaining information about dPAPP-A concentration and, consequently, for predicting the rupture of vulnerable plaques (Postnikov et al., 2012).

CLINICAL UTILITY

- Prediction of major adverse cardiac events
- Acute myocardial infarction
- Acute coronary syndrome
- Unstable angina

Immunoassays for quantifying NT-IGFBP4 and CT-IGFBP4

To quantify IGFBP-4-fragments, we offer MABs specific to epitopes available for MAb binding only after the proteolytic cleavage of IGFBP-4 by dPAPP-A (Figure 2). Cross-reactivity of these neopeptotop-specific MABs with full-length IGFBP-4 is negligible (1.4% or less), thus allowing for specific quantitation of cleaved fragments regardless of the presence of non-cleaved IGFBP-4.

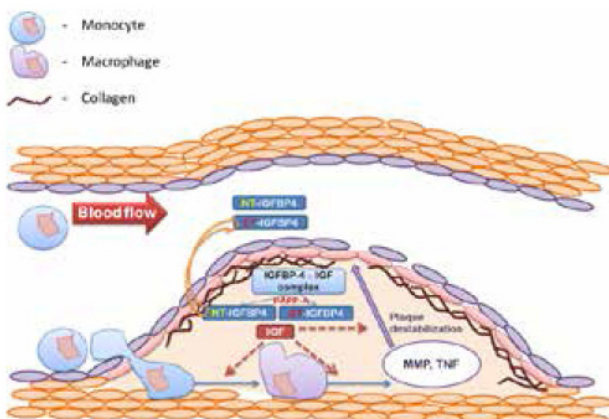
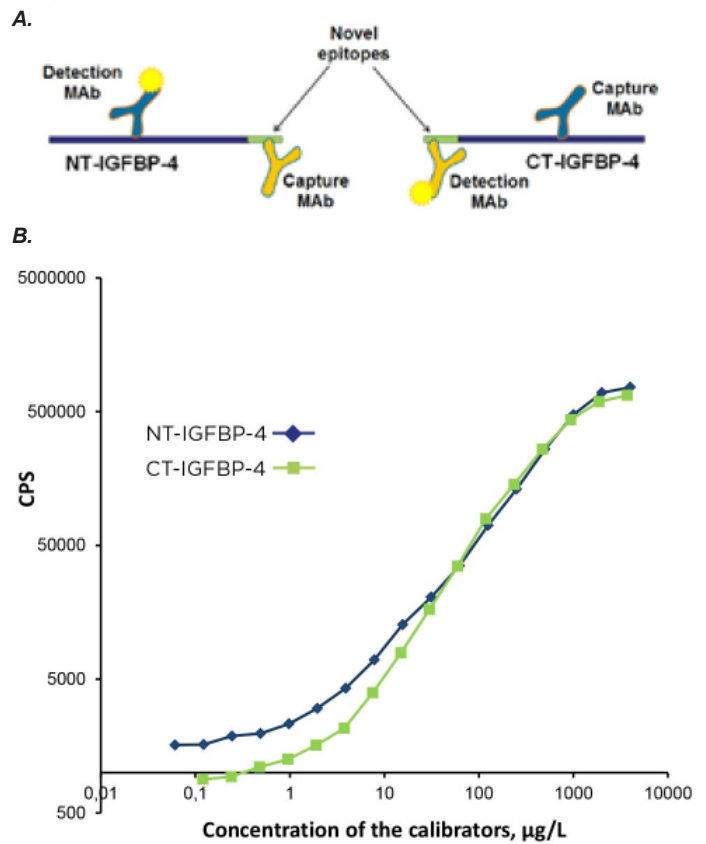


Figure 1. Schematic representation of NT- and CT-IGFBP-4 assays.

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Figure 2. Sandwich immunoassays for detecting NT- and CT-IGFBP-4. (A) Schematic representation of the assays and capture/detection MAbs chosen for each assay. (B) Representative immunoassays with purified recombinant NT- and CT-IGFBP-4 fragments.



Ordering Information:

MONOCLONAL ANTIBODIES

Product	Cat #	Tested applications
Monoclonal mouse anti-Insulin-like growth factor binding protein 4 (IGFBP-4)	2-IGFBP4*	Enzyme immunoassays

*Several MAbs available under one catalog number. Please see www.advimmuno.com

ANTIGEN

Product	Cat #	Source	Purity
IGFBP-4, human, recombinant	8-IGFBP-rh	Recombinant	>90%
NT-IGFBP-4, human, recombinant	8-IGFBPN-rh	Recombinant	>95%
CT-IGFBP-4, human, recombinant	8-IGFBPC-rh	Recombinant	>95%

