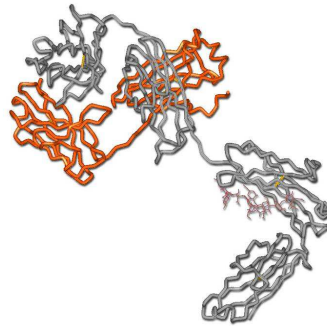




# UniBody®



**A NEW THERAPEUTIC PARADIGM  
COMBINING LONG HALF-LIFE AND MONOVALENT, NON-  
ACTIVATING BINDING IN ONE MOLECULE**

**NON-CONFIDENTIAL BROCHURE**

**20 October 2008**

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## The concept

Conventional IgG is not always the most suitable format for optimal therapeutic efficacy. IgG binds two antigen molecules (bivalent binding) and is able to cross-link antigens. In certain cases this leads to activation of the target molecules, with possible detrimental consequences.

To circumvent this, new antibody formats are rapidly emerging on the market, which bind antigen monovalently, in other words: are non-activating. These novel antibody formats, however, share one disadvantage: a very short half-life!

Genmab has generated a novel antibody format that maintains the long-lasting efficacy of conventional IgG without its activating side-effects: the **UniBody®** format.

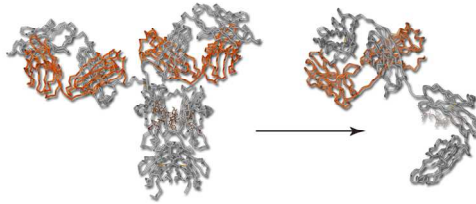
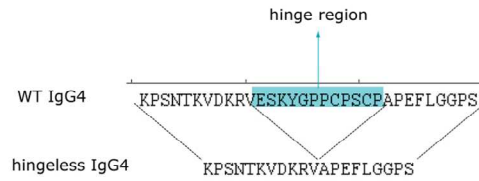
## Format Landscape

schematic representation	name	non-activating	size (kDa)	long half life	low immunogenic
	UniBody®	✓	72	✓	✓
	Nanobody	✓	15	—	—
	Domain Ab	✓	13	—	✓
	scFv	✓	25	—	✓
	Diabody	—	50	—	✓
	Novel Scaffolds	—	not applicable	—	not applicable

## The facts

- UniBody® is a **stable half-molecule** consisting of one heavy and one light IgG chain only, designed at Genmab by deleting the core hinge region of human IgG4.

## UniBody<sup>®</sup> Non-Confidential Brochure



- The UniBody<sup>®</sup> format is applicable to any existing antibody coding sequence.
- UniBody<sup>®</sup> molecules bind only one antigen molecule (**monovalent, non-activating binding**) and preclude cross-linking of antigen molecules.
- The use of human IgG4 as basis for the UniBody<sup>®</sup> format prevents activation of the immune system. This further adds to the **non-activating** characteristics of UniBody<sup>®</sup>.
- UniBody<sup>®</sup> molecules possess an Fc domain of IgG which protects the molecule from rapid degradation and preserves the **long-lasting efficacy** of conventional IgG.
- UniBody<sup>®</sup> molecules have a smaller molecular size which may aid in tissue and tumor penetration
- UniBody<sup>®</sup> is proprietary to Genmab, based on several patent applications

**In conclusion, UniBody<sup>®</sup> is the format of choice when binding to a target is sufficient for therapeutic efficacy.**