## **Product Data Sheet**

Product number G006
Revision number RN3.5



**Product Name** 

DGPx2 (Fusion protein of 2 deamidated gliadin peptides)

**Background info** 

Detection of gliadin antibodies has been used for a long time in celiac disease diagnostics, but suffered from a low specificity. This disadvantage was overcome by the introduction of deamidated gliadin peptides as antigen.

The rationale behind is that tissue transglutaminase catalyzes gliadin deamidation in the intestinal mucosa of celiac disease patients, resulting in deamidated gliadin peptides which are recognized by HLA receptors of immune cells. Therefore, deamidated gliadin antibodies are specific for celiac disease.

We introduced four different variations of deamidated gliadin antigens composed by a carrier protein linked with a combination of the deamidated 33-mer and 26-mer gamma gliadin peptides and the DQ2-GI- and DQ2-GII-peptides (Dørum S. et al., J Proteome Res. 2009; 8:1748-55). In addition, the non-deamidated native versions as well as the carrier protein control are available.

	Art. No.	Name	
	G051	26mer gliadin peptide	Carrier - 26mer ygliadin
	G052	22man aliadin nantida	
	G052	33mer gliadin peptide	Carrier - 33mer agliadin
	0055	0 : 1: 11	
	G055	Carrier protein control	Carrier
	G007 / G060	DGPx1 (26mer DGP)	Carrier - 26mer ygliadin, deamidated
	G054	33mer DGP	Carrier 33mer α-gliadin, deamidated
	0004	Somer Doi	Somer agridain, deamidated
$\longrightarrow$			
	G006	DGPx2	Carrier - 33mer α-gliadin, deamidated - 26mer γ-gliadin, deamidated
	G005	DGPx4	Carrier 33mer α-gliadin, deamidated 26mer γ-gliadin, deamidated DQ2-γ1 DQ2-γ2

**Description** 

DGPx2 is a fusion protein of 2 different deamidated gliadin peptides, fused with a carrier protein to be used as antigen for the detection of antibodies specific for deamidated gliadin. (Dørum S. et al., J Proteome Res. 2009; 8:1748-55).

Source Recombinantly produced in *E. coli* 

Quantity 250 μg / 1 mg / customized amount

Molecular Weight 31 kDa

**Appearance** White lyophilized solid.

**Reagents** DGPx2 is lyophilized from a solution of ~50 mM NaH<sub>2</sub>PO<sub>4</sub>, pH 6.8.

**Reconstitution** Add at least the volume of H<sub>2</sub>O the protein is lyophilized from (see Certificate of Analysis) to

the vial of lyophilized powder. Rotate vial gently until solid dissolves. After reconstitution the

solution should be stored frozen in working aliquots.

**Application** The recombinant antigen is meant for solid (ELISA and immuno blot) and fluid phase

diagnostic assays. The protein is bound by human type IgA and IgG (auto) antibodies.

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Coating Dilute with your coating buffer to an appropriate concentration e.g. 1 µg/ml. Please notice that

coating conditions have to be evaluated carefully.

Storage Store at -80°C. Stability is given for at least 3 years when stored at -80°C (see retest date on

Certificate of Analysis), with potential to date extend after retesting.

If storage at -80°C is not possible, storage at ≤ -20°C is recommended. Solutions of DGPx2

are stable for at least 2 years when stored at ≤ -20°C.

Upon reconstitution, store undiluted working aliquots preferably at -80°C (if not possible at

≤ -20°C, see comment above).

Avoid repeated freezing and thawing.

Delivery is possible at ambient temperature

**Related products** G005 DGPx4 (Fusion protein of 4 deamidated gliadin peptides)

G007 DGPx1 (deamidated gliadin peptide)

Release date 16 February 2024

NOTE INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR

DIAGNOSTIC APPLICATIONS.