

## **Gliadin (recombinant; deamidated)**

### **Antigen Specification**

**Product Number: 19500**

**Description:**

Gliadin fragment (storage protein from wheat (*Triticum aestivum*) grain). Recombinant antigen for in vitro research and manufacturing use only.

**Immunological function:**

Binds IgG- and IgA-type human auto-antibodies in sera of patients diagnosed with celiac disease.

**Origin:**

Recombinant. Expressed in *E. coli* bacterial cells.

**Expression construct:**

cDNA coding for an epitope-carrying fragment of a wheat gamma-gliadin isoform, fused to a hexa-histidine purification tag. By sequence design the epitopes correspond to the deamidated neo-epitopes, which in the natural antigen are formed by transglutaminase-mediated glutamine side chain deamidation.

**Biochemical tests:**

SDS-PAGE (purity > 80%); Western blot with anti-Gliadin autoantibody-positive sample.

**Calculated molecular weight:**

19 kDa (high proline content and the low pI are likely causes for the observed discrepancy between calculated molecular weight and the observed electrophoretic mobility of approx. 50 kDa on standard SDS-PAGE).

**Calculated isoelectric point:**

pH 4.6

**Immunological tests/Functionality:**

Standard ELISA test (checkerboard analysis of positive/negative samples); immunodot analyses with positive/negative samples.

**Recommended buffer/storage and handling conditions:**

Recommendations for storage buffer: neutral to slightly alkaline pH and 20% glycerol as cryoprotective agent. Storage conditions: -70°C or below. Repeated freeze/thaw cycles should be avoided.

**Coating concentration:**

0.15-0.5 µg/mL (depending on the type of ELISA plate and coating buffer).

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