# GGL (153-81D4): sc-59548



The Power to Question

## **BACKGROUND**

Expression and transamidation activity of tissue transglutaminase may be involved in the morphological modifications leading to the mucosal atrophy that occurs in celiac disease (CD), an autoimmune inflammatory disorder of the small bowel. The N  $\epsilon$ -( $\gamma$ -glutamyl)-lysine (GGL) bond occurs between extracellular matrix (ECM) components and is formed by transglutaminase activity. The bond is highly resistant to proteolysis and may play a role in apoptosis, cellular differentiation and matrix stabilization. GGL localizes to the nucleus and is released from blood cells during coagulation. It is important in ECM accumulation and tissue fibrosis by increasing deposition and inhibiting breakdown. Abnormal levels of GGL are associated with human diabetic nephropathy (DN), a disease characterized by an early, progressive expansion and sclerosis of the glomerular mesangium leading to glomerulosclerosis associated with parallel fibrosis of the renal interstitium.

## **REFERENCES**

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## **SOURCE**

GGL (153-81D4) is a mouse monoclonal antibody raised against synthetic  $\epsilon$ -( $\gamma$ -glutamyl)-lysine.

#### **PRODUCT**

Each vial contains 100  $\mu$ l ascites containing IgM with < 0.1% sodium azide.

## **APPLICATIONS**

GGL (153-81D4) is recommended for detection of  $\gamma$ -glutamyl lysine by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunofluorescence (starting dilution to be determined by researcher, dilution range 1:50-1:2500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:50-1:2500); non cross-reactive with either lysine or glutamine.

#### **STORAGE**

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

## **PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.

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