

## 12-1197: Anti-IgG4 (Ig Heavy Constant Gamma 4) (G4m Marker) Recombinant Rabbit Monoclonal Antibody (Clone:IGHG4/2042R)

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	IGHG4/2042R
<b>Application :</b>	IHC
<b>Reactivity :</b>	Human
<b>Gene :</b>	IGHG4
<b>Gene ID :</b>	3503
<b>Uniprot ID :</b>	P01861
<b>Format :</b>	Purified
<b>Alternative Name :</b>	Ig gamma 4 chain C region; IGHG4; Immunoglobulin heavy constant gamma 4 (G4m marker)
<b>Isotype :</b>	Rabbit IgG
<b>Immunogen Information :</b>	Recombinant full-length human IGHG4 protein

### Description

The regions of relatively constant sequence beyond the variable regions of immunoglobulins are termed constant regions (C regions) and are present in both the heavy and light chains. With very few exceptions, the sites of attachment for carbohydrates on immunoglobulins are located in these C regions. These regions also function to hold the variable regions together by using the disulfide bond between them. The C regions facilitate interaction with the antigen by increasing the maximum rotation of the immunoglobulin arms. Reportedly, a large population of patients with recurrent respiratory tract infection has low IgG4 concentrations. IgG4-related sclerosing disease has been recognized as a systemic disease entity characterized by an elevated serum IgG4 level, sclerosing fibrosis, and diffuse lympho-plasmacytic infiltration with the presence of many IgG4-positive plasma cells. IgG4 is overexpressed in inflammatory pseudo-tumor (IPT) and under expressed in inflammatory myofibroblastic tumor (IMT). In pulmonary nodular lymphoid hyperplasia (PNLH), there are an increased number of IgG4+ plasma cells.

### Product Info

<b>Amount :</b>	20 µg / 100 µg
<b>Purification :</b>	Protein A/G
<b>Content :</b>	200µg/ml of recombinant MAb purified by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
<b>Storage condition :</b>	Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous.

### Application Note

Immunohistochemistry (Formalin-fixed) (1-2Âµg/ml for 30 minutes at RT)(Staining of formalin-fixed tissues is enhanced by heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0 for 45 min at 95&degC followed by cooling at RT for 20 minutes)

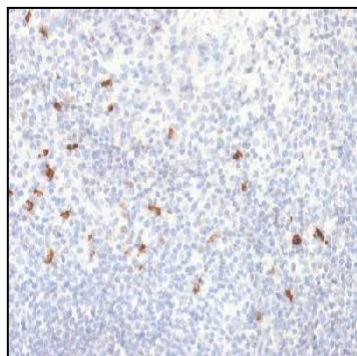


Figure 1: Formalin-fixed, paraffin-embedded Human Tonsil stained with IgG4 Rabbit Recombinant Monoclonal Antibody (IGHG4/2042R).

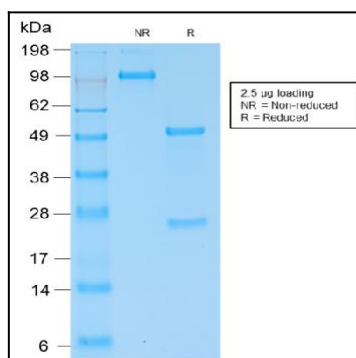


Figure 2: SDS-PAGE Analysis Purified IgG4 Rabbit Recombinant Monoclonal Antibody (IGHG4/2042R).

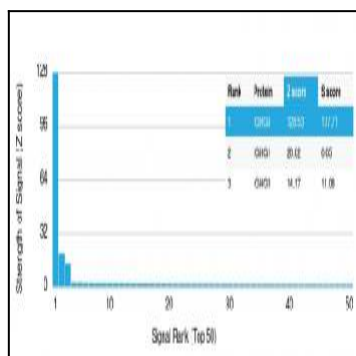


Figure 3: Analysis of Protein Array containing more than 19,000 full-length human proteins using IgG4 Recombinant Rabbit Monoclonal Antibody (IGHG4/2042R). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to be specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.