

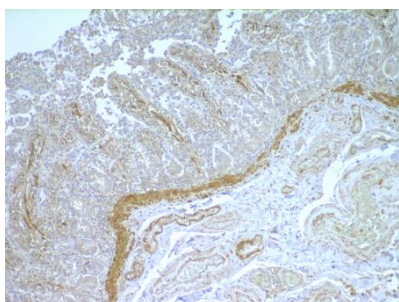
**CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET**

<b>Product name</b>	NOD2, Human, clone 2.017		
<b>Catalog number</b>	HM2291		
<b>Lot number</b>	-	<b>Expiry date</b>	-
<b>Volume</b>	1 ml	<b>Amount</b>	100 µg
<b>Formulation</b>	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	<b>Concentration</b>	100 µg/ml
<b>Host Species</b>	Mouse IgG2a	<b>Conjugate</b>	None
<b>Endotoxin</b>	N.A.	<b>Purification</b>	Protein G
<b>Storage</b>	4°C		

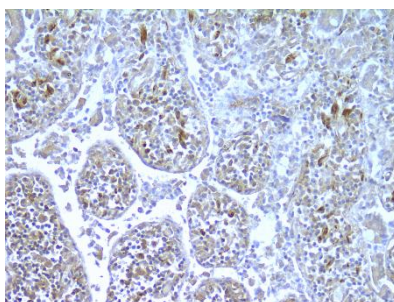
**Application notes**

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #								
Yes	•	•				•	•	•
No								
N.D.			•	•	•			

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



IHC-P: NOD2 on human jejunum. Staining of paraffin tissue section with antibody 2.017 with a dilution of 100x.



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Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- IHC-P: Tissue sections were pretreated with 10mM Citrate (pH 6.0). Tissue sections were fixed in alcohol and blocked with endogenous peroxidases.

**General Information**
**Description**

Monoclonal antibody 2.017 recognizes human NOD2, also known as CARD15. The innate immune system is the first line of defense against pathogens using various pattern recognition receptors (PRR). PRRs include toll-like receptors (TLRs), nucleotide-binding oligomerization domain (NOD)-like receptors (NLRs) and retinoic acid-inducible (RIG)-I-like receptors (RLR). The Nod-like receptor (NLR) family of proteins consists of cytosolic pattern recognition molecules involved in sensing microbial and danger signals and triggering innate immune activation. The NOD family is involved in the regulation of apoptosis and the immune response. The founding members of NLRs are NOD1 and NOD2. These intracellular receptors recognize peptidoglycans. The receptor consists of three main domains. The C-terminal site recognizes the ligand via the leucine-rich repeat domain (LRR). The NOD domain facilitates the self-oligomerization and contains the ATPase activity. The N-terminal site is the caspase-recruitment domain (CARD). Proteoglycans are polymers composed of glycan chains of alternating N-acetylglucosamine (GlcNAc) and N-acetylmuramic acid (MurNAc) units cross-linked to each other by short peptides. The cross-linking of two parallel glycan chains is mediated by stem peptides that can be further linked by bridging amino acids. For activation of the immune system, NOD2 senses muramyl dipeptide (MDP), which is found in the PGN of nearly all Gram-positive and Gram-negative organisms, whereas NOD1 recognizes meso-diaminopimelic acid (meso-DAP)-containing PGN fragments. Stimulation of NOD1 or NOD2 results in the activation of NF-κB and MAPKs, through a homophilic interaction with the adaptor kinase, Rip2. Thereby driving the transcription of numerous genes involved in both innate and adaptive immune responses. NOD2

seems of special importance in commensal homeostasis and especially in the gut. This is reflected by the fact that genetic variation has been found in patients with inflammatory bowel disease (IBD), particularly Crohn's disease. NOD2 is mainly expressed by macrophages, monocytes as well as Paneth cells, T and B cell, dendritic cells and intestinal epithelial cells. NOD2 antibody 2.017 can be used for western blotting, immunohistochemistry, ELISA and immunoprecipitation.

<b>Immunogen</b>	Recombinant NOD2.
<b>Aliases</b>	CARD15, Caspase recruitment domain-containing protein 15, Inflammatory bowel disease protein 1
<b>Storage&amp;stability</b>	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.
<b>Precautions</b>	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

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We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC  
Robbert Zwinkels

Date  
16/03/2018

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).