

**Rabbit Anti-DUOX2 (Dual Oxidase 2) Polyclonal: RC0421**

**Intended Use:** For Research Use Only

**Description:** The DUOX2 or Dual Oxidase 2 is a glycoprotein and a member of the NADPH oxidase family. The synthesis of thyroid hormone is catalyzed by a protein complex located at the apical membrane of thyroid follicular cells. This complex contains an iodide transporter, thyroperoxidase, and a peroxide generating system that includes this encoded protein and DUOX1. This protein is known as dual oxidase because it has both a peroxidase homology domain and a gp91phox domain. Expressed in colon, small intestine, duodenum and tracheal surface epithelial cells. Expressed in thyrocytes. Also detected in kidney, liver, lung, pancreas, prostate, salivary glands, rectum and testis. Generates hydrogen peroxide which is required for the activity of thyroid peroxidase/TPO and lactoperoxidase/LPO. Plays a role in thyroid hormones synthesis and lactoperoxidase-mediated antimicrobial defense at the surface of mucosa. May have its own peroxidase activity through its N-terminal peroxidase-like domain.

**Specifications**

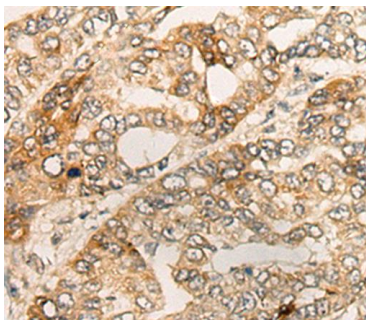
Clone: Polyclonal  
 Source: Rabbit  
 Isotype: IgG  
 Reactivity: Human, rat  
 Immunogen: Synthetic peptide of human DUOX2 protein  
 Localization: Apical cell membrane  
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, ELISA  
 Package:

Description	Catalog No.	Size
DUOX2 (Dual Oxidase 2) Polyclonal Concentrated	RC0421	1 ml

**IHC Procedure\***

Positive Control Tissue: Thyroid, liver cancer  
 Concentrated Dilution: 10-100  
 Pretreatment: Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C  
 Incubation Time and Temp: Overnight @ 4°C  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human liver stained with anti-DUOX2 using DAB

**References:**

1. DUOX2-mediated production of reactive oxygen species induces epithelial mesenchymal transition in 5-fluorouracil resistant human colon cancer cells. Kyoung Ah Kang, et al. Redox Biol. Jul:17:224-235, 2018.
2. NOX5-L can stimulate proliferation and apoptosis depending on its levels and cellular context, determining cancer cell susceptibility to cisplatin. Dho SH et al. Oncotarget 6:39235-46, 2015.