

# IHC*easy* SIRT1 Ready-To-Use IHC Kit

Catalog Number: **KHC1207**

## General Information

**Sample type:**  
FFPE tissue

**Cited sample type:**

**Reactivity:**  
Human, Mouse, Rat

**Cited Reactivity:**

**Assay type:**  
Immunohistochemistry

**Primary antibody type:**  
Rabbit Polyclonal

**Secondary antibody type:**  
Polymer-HRP-Goat anti-Rabbit

## Kit Component

| Component                | Size               | Concentration |
|--------------------------|--------------------|---------------|
| Antigen Retrieval Buffer | 100 mL             | 50×           |
| Washing Buffer           | 100 mL ×2          | 20×           |
| Blocking Buffer          | 5 mL               | RTU           |
| Primary Antibody         | 5 mL               | RTU           |
| Secondary Antibody       | 5 mL               | RTU           |
| Chromogen Component A    | 0.2 mL             | RTU           |
| Chromogen Component B    | 4 mL               | RTU           |
| Signal Enhancer          | 5 mL               | RTU           |
| Counter Staining Reagent | 5 mL               | RTU           |
| Mounting Media           | 5 mL               | RTU           |
| Control Slide            | 1 slide (Optional) | FFPE          |
| Datasheet                | 1 Copy             |               |
| Manual                   | 1 Copy             |               |

## Storage Instructions

All the reagents are stored at 2-8°C. The kit is stable for 6 months from the date of receipt.

## Background

SIRT1, also named as SIR2L1, contains a deacetylase sirtuin-type domain and belongs to the sirtuin family. SIRT1 may be found in nucleolus, nuclear euchromatin, heterochromatin and inner membrane. It can shuttles between nucleus and cytoplasm. SIRT1 regulates processes such as apoptosis and muscle differentiation by deacetylating key proteins. SIRT1 in particular initiates several signaling events relevant to cardioprotection, including: activation of endothelial nitric oxide synthase, INS receptor signaling, and autophagy. In addition SIRT1 activation elicits resistance to oxidative stress via regulation of transcription factors and co-activators such as FOXO, Hif-2a, and NF-κB. SIRT1 regulates the p53-dependent DNA damage response pathway by binding to and deacetylating p53, specifically at Lysine 382.

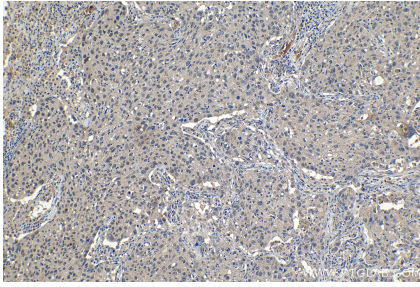
## Synonyms

hSIR2, hSIRT1, SIR2 like protein 1, SIR2L1, SIRT1

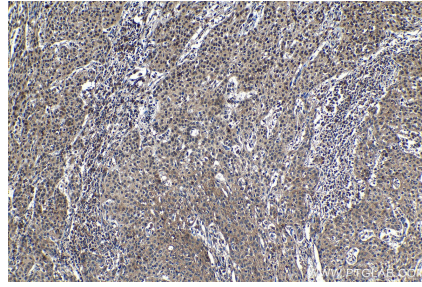
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
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## Selected Validation Data



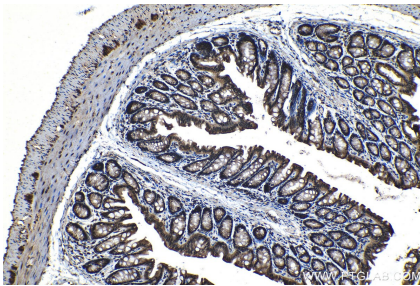
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using KHC1207 (SIRT1 IHC Kit).



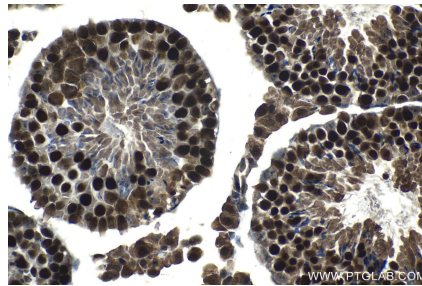
Immunohistochemical analysis of paraffin-embedded human cervical cancer tissue slide using KHC1207 (SIRT1 IHC Kit).



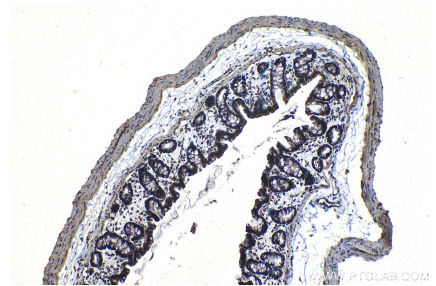
Immunohistochemical analysis of paraffin-embedded human colon tissue slide using KHC1207 (SIRT1 IHC Kit).



Immunohistochemical analysis of paraffin-embedded mouse colon tissue slide using KHC1207 (SIRT1 IHC Kit).



Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using KHC1207 (SIRT1 IHC Kit).



Immunohistochemical analysis of paraffin-embedded rat colon tissue slide using KHC1207 (SIRT1 IHC Kit).