

# IHCeasy<sup>®</sup> IDH3B Ready-To-Use IHC Kit

Catalog Number: **KHC3145**

## General Information

**Sample type:**  
FFPE tissue

**Cited sample type:**

**Reactivity:**  
Human, Mouse, Rat

**Cited Reactivity:**

**Assay type:**  
Immunohistochemistry

**Primary antibody type:**  
Mouse Monoclonal

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

## 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.

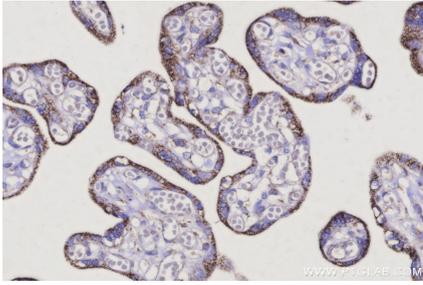
## Background

Isocitrate dehydrogenase 3 (IDH3) is a key enzyme in the mitochondrial tricarboxylic acid (TCA) cycle, which catalyzes the decarboxylation of isocitrate into  $\alpha$ -ketoglutarate and concurrently converts NAD<sup>+</sup> into NADH. IDH3B (Isocitrate dehydrogenase 3 (NAD<sup>+</sup>) beta), also named as RP46, is the beta subunit of IDH3 and controls its substrate levels in the TCA cycle, and it is required for sperm mitochondrial metabolism and spermiogenesis. In addition, IDH3B expression increased PFKFB3 protein levels and enhanced glucose uptake, and high expression of IDH3B correlated with poor survival in patients with ESCC, suggesting a potential application of IDH3B in prognosis.

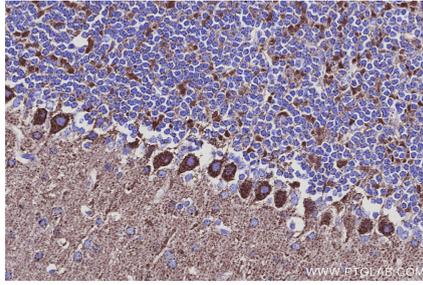
## Synonyms

H IDHB, NAD(+)-specific ICDH subunit beta, RP46

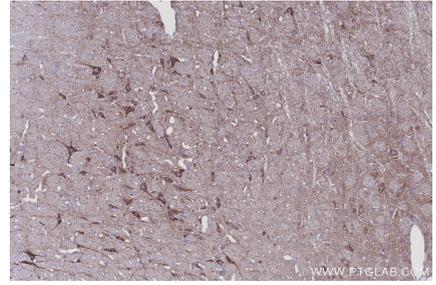
## Selected Validation Data



Immunohistochemical analysis of paraffin-embedded human placenta tissue slide using KHC3145 (IDH3B IHC Kit).



Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue slide using KHC3145 (IDH3B IHC Kit).



Immunohistochemical analysis of paraffin-embedded rat cerebellum tissue slide using KHC3145 (IDH3B IHC Kit).