



## MONOCLONAL ANTIBODY

Catalog No. ABN-M01-CY

# Anti mouse CYP7A1 (Cytochrome P450, Family 7, Superfamily A, Polypeptide 1)

### BACKGROUND

#### Mouse monoclonal antibody against CYP7A1, a mature hepatocyte-specific marker

Since well-known liver-related genes, such as albumin, are expressed in yolk sac as well as in liver, these genes are not necessarily liver-specific genes. The CYP7A1 gene encoding cholesterol 7  $\alpha$ -hydroxylase, the first step enzyme in biosynthetic pathway from cholesterol to bile acid, is specifically expressed in mature hepatocytes but neither in yolk sac nor in extra-hepatic organs.<sup>1,2</sup>) In order to reveal hepatocyte differentiation from non-hepatic origins, including ES cells, bone marrow, and umbilical cord blood, it is required to distinguish differentiation via definitive endoderm from that via visceral endoderm generating yolk sac.

#### 成熟肝細胞特異的マーカーCYP7A1 抗体

肝細胞のマーカーとして知られているアルブミンなどの遺伝子は卵黄嚢にも発現しており、必ずしも肝細胞特異的なマーカーとは言えない<sup>1)</sup>。コレステロールから胆汁酸への生合成経路の初発段階反応を触媒する CYP7A1 (cholesterol 7 hydroxylase)の遺伝子は卵黄嚢には発現せず、成熟肝細胞に特異的に発現する<sup>1,2)</sup>。ES 細胞や骨髄、臍帯血などの非肝臓源からの肝細胞様細胞の分化誘導の研究では、原始内胚葉由来の卵黄嚢を構成する臓側内胚葉由来でなく、真に内胚葉由来であることを証明することが必要となる。

<b>Product type</b>	Primary antibodies
<b>Host</b>	Mouse
<b>Source</b>	Ascites(purified ascites)
<b>Form</b>	Liquid 1×PBS, pH7.2
<b>Volume</b>	100ug
<b>Concentration</b>	1mg/ml
<b>Specificity</b>	Mouse CYP7A1
<b>Antigen</b>	CYP7A1 (peptide corresponding to amino acids 180-279)
<b>Clone</b>	1D9
<b>Isotype</b>	IgG2b /k

**Application notes** WB  
**Recommended use**

#### Recommended dilutions

Western blotting, 1/1,000

Optimal dilutions/concentrations should be determined by the end user.

#### Staining Pattern

**Cross reactivity** Mouse(Not tested in other species)

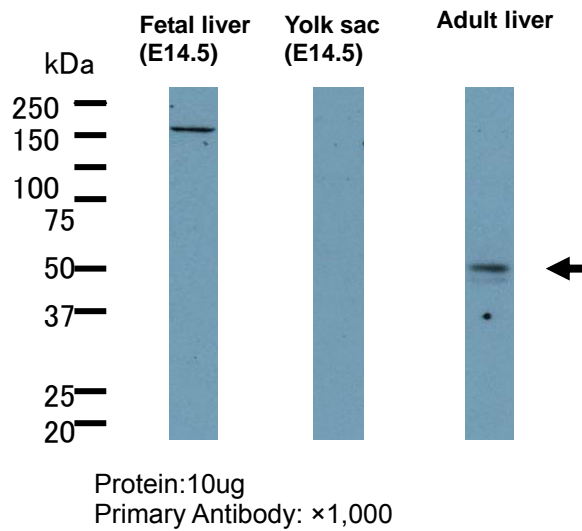
**Storage** Store below -20°C (below -70°C for prolonged storage).



References

- 1) Asahina K., Teramoto, K. and Teraoka, H. : Current Stem Cell Research and Therapy 1:139-156, 2006
- 2) Asahina, K. et al.: Genes to Cells 9:1297-1308, 2004

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