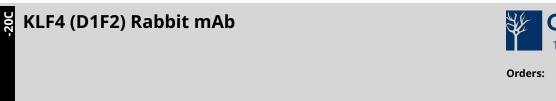
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| Applications:<br>W, W-S, IP                 | Reactivity:<br>H         | <b>Sensitivity:</b><br>Endogenous  | <b>MW (kDa):</b><br>62 | Source/Isotype:<br>Rabbit IgG | <b>UniProt ID:</b><br>#O43474                     | Entrez-Gene Id:<br>9314 |  |  |
|---|--------------------------|--|------------------------|-------------------------------|---|-------------------------|--|--|
| Product Usage<br>Information                |                          | Application<br>Western Blotting<br>Simple Western™<br>Immunoprecipitation  |                        | habberge                      | <b>Dilution</b><br>1:1000<br>1:10 - 1:50<br>1:100 |                         |  |  |
| Storage                                     |                          | Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.   |                        |                               |   |                         |  |  |
| Specificity/Sen                             | sitivity                 | KLF4 (D1F2) Rabbit mAb recognizes endogenous levels of total KLF4 protein.   |                        |                               |   |                         |  |  |
| Species predic<br>based on 100%<br>homology | ted to react<br>sequence | Monkey   |                        |                               |   |                         |  |  |
| Source / Purifi                             | cation                   | Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly345 of human KLF4 protein.   |                        |                               |   |                         |  |  |
| Background                                  |                          | KLF4 is a member of the erythroid Kruppel-like factor (EKLF) multigene family that is highly expressed<br>in the differentiating layers of the epidermis (1, 2). KLF4 plays a critical role in the differentiation of<br>epithelial cells and is essential for normal gastric homeostasis (2,3). Depending on the target gene,<br>KLF4 can function as both a repressor and activator of transcription (4). Research studies suggest this<br>protein may function as either a tumor suppressor or an oncogene depending on tumor type, with up-<br>regulation in human squamous cell carcinoma of the head and neck and down-regulation in colorectal<br>carcinoma (5,6). The <i>in vitro</i> reprogramming of somatic cells to an embryonic-like state has been<br>achieved by retroviral transduction of four factors: Oct-3/4, Sox2, c-Myc, and KLF4 (7). These induced<br>pluripotent stem cells (iPS) are of great therapeutic interest as they exhibit the key characteristics and<br>growth properties of pluripotent stem cells (8,9). |                        |                               |   |                         |  |  |
| Background Ro                               | eferences                | 1. Yet, S.F. et al. (1998) <i>J Biol Chem</i> 273, 1026-31.<br>2. Segre, J.A. et al. (1999) <i>Nat Genet</i> 22, 356-60.<br>3. Katz, J.P. et al. (2005) <i>Gastroenterology</i> 128, 935-45.<br>4. Evans, P.M. and Liu, C. (2008) <i>Acta Biochim Biophys Sin (Shanghai)</i> 40, 554-64.<br>5. Foster, K.W. et al. (2005) <i>Oncogene</i> 24, 1491-500.<br>6. Rowland, B.D. and Peeper, D.S. (2006) <i>Nat Rev Cancer</i> 6, 11-23.<br>7. Takahashi, K. and Yamanaka, S. (2006) <i>Cell</i> 126, 663-76.<br>8. Meissner, A. et al. (2007) <i>Nat Biotechnol</i> 25, 1177-81.<br>9. Park, I.H. et al. (2008) <i>Nature</i> 451, 141-6.  |                        |                               |   |                         |  |  |
| Species Reacti                              | vity                     | Species reactivity is de   | etermined by testing   | g in at least one approve     | ed application (e.g.,                             | western blot).          |  |  |
| Western Blot E                              | Buffer                   | IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X<br>TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.  |                        |                               |   |                         |  |  |
| Applications K                              | ey                       | W: Western Blotting W-S: Simple Western™ IP: Immunoprecipitation   |                        |                               |   |                         |  |  |
| Cross-Reactivit                             | ty Key                   | H: Human   |                        |                               |   |                         |  |  |
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