

# Renal Cell Carcinoma (RCC); Clone 66.4.C2 (Ready-To-Use)

<b>Availability/Contents:</b>	<u><b>Item #</b></u>	<u><b>Volume</b></u>
	A00118-0002	2 ml
	A00118-0007	7 ml
	A00118-0025	25 ml

**Description:**

**Species:** Mouse

**Immunogen:** Fresh, normal human renal cortical tissue homogenate was used as immunogen.

**Clone:** 66.4.C2

**Isotype:** Mouse IgG2b, Kappa

**Format:** This antibody has been pretitered and quality controlled to work on formalin-fixed paraffin-embedded as well as acetone fixed cryostat tissue sections. No further titration is required.

**Specificity:** The actual protein recognized by RCC-ma antibody is a 200 kDa glycoprotein (gp200) expressed in renal epithelial cells. In normal tissue, the renal cell carcinoma/RCC-ma/gp200 antibody stains the brush border of proximal renal tubules in human kidneys. Gp200 is also expressed in some non-kidney tissues including breast tubules and ducts, the surface of epididymal tubular epithelia, and the colloid of thyroid follicles. However because of the reported high expression of gp200 in renal cell carcinoma, gp200 is most commonly referred to as Renal Cell Carcinoma Marker.

**Background:** Renal cell carcinoma (RCC) is a common form of kidney cancer that poses challenges for the pathologist (reviewed in Ingold et al, 2008). Firstly, renal cell carcinoma (RCC) may initially present as a metastatic lesion of an undetected primary tumor. Secondly, a late occurrence of renal cell carcinoma metastasis after nephrectomy can make it difficult to confirm renal origin. Thirdly, metastatic renal cell carcinoma has morphological similarities with various types of primary non-renal tumors thereby compounding typing challenges. In view of these issues, antibodies recognizing protein markers associated with a given cancer have become important tools for tumor classification.


The renal cell carcinoma (RCC) monoclonal antibody marker, also known as RCC-ma, is a marker for renal cell carcinoma (reviewed in Ingold et al, 2008). The 66.4.C2 antibody has been used in antibody panels to help determine or rule out renal cell carcinoma. For example, a kidney mass removed from a neonate with suspected tuberous sclerosis complex was negative for renal cell carcinoma antibody staining and it was determined that renal cell carcinoma was not present (Murkami et al, 2012). In contrast, a kidney mass from a child was positive for renal cell carcinoma antibody staining and the mass was defined as a renal cell carcinoma (Chen et al, 2012).

Renal cell carcinoma antibody reactivity has been described in up to 93% of primary human renal cell carcinomas and 84% of renal cell carcinoma metastases. The clone 66.4.C2 antibody has also been used to help make a diagnosis of renal cell carcinoma in a horse with a mass of unknown origin (Swain et al, 2005).

Storage: 2° C  8° C

 ScyTek Laboratories, Inc.  
205 South 600 West  
Logan, UT 84321  
U.S.A.

**CE**

 EmergoEurope (31)(0) 70 345-8570  
Molsnstraat 15  
2513 BH Hague, The Netherlands

# Instructions For Use

## A00118-IFU-RUO

Rev. Date: Jan. 1, 2013

Revision: 1

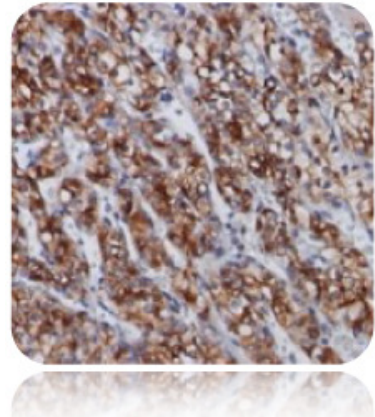
Page 2 of 3

P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - [www.scytek.com](http://www.scytek.com)

There is considerable commentary regarding the antibody properties of the 66.4.C2 and other RCC-ma clones, including antibody staining patterns in renal cell carcinoma, other cancers, normal tissues, as well as using the antibody to discriminate between tumor types.

Species Reactivity: Human, Horse. Others not tested.  
 Positive Control: Kidney.  
 Cellular Localization: Cytoplasmic.  
 Titer/Working Dilution: No further dilution is required.  
 Microbiological State: This product is not sterile.

**Uses/Limitations:** Not to be taken internally.  
 For Research Use Only.  
 This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.  
 Do not use if reagent becomes cloudy.  
 Do not use past expiration date.  
 Use caution when handling reagents.  
 Non-Sterile.



**Ordering Information and Current Pricing at [www.scytek.com](http://www.scytek.com)**

**Procedure:**

1. **Tissue Section Pretreatment:** Staining of formalin fixed, paraffin embedded tissue sections is enhanced by pretreatment with Trypsin, Stabilized Solution (ScyTek catalog# TSS155).
2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.
3. **Visualization:** For maximum staining intensity we recommend the “UltraTek HRP Anti-Polyvalent Lab Pack” (ScyTek catalog# UHP125, see IFU for instructions) combined with the “DAB Chromogen/Substrate Bulk Pack (High Contrast)” (ScyTek catalog# ACV500, see IFU for instructions).

**Precautions:** Contains Sodium Azide as a preservative (0.09% w/v).  
 Do not pipette by mouth.  
 Avoid contact of reagents and specimens with skin and mucous membranes.  
 Avoid microbial contamination of reagents or increased nonspecific staining may occur.  
 This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.


**References:**

1. Murakami et al. Pathol Int 62:209-215 (2012). IHC (P): Table 1 (kidney mass from a human neonate).
2. Swain et al. J Vet Intern Med 19:613-616 (2005). IHC (P), Fig 4 (mass of unknown origin in a horse). Note: The antibody helped define the mass as a renal cell carcinoma.
3. Ingold et al. Histopathology 52:674-681 (2008). IHC(P): human renal cell carcinoma and their metastases, haemangioblastoma (results described).
4. Chen et al. Pathol Oncol Res 18:111-116 (2012). IHC(P): human renal tumor (results described).
5. Bayer D, O Aydin. Pathol Int 58:713-717 (2008). IHC (P): Table 1 (human kidney lesions).

Storage: 2° C  8° C




 ScyTek Laboratories, Inc.  
 205 South 600 West  
 Logan, UT 84321  
 U.S.A.



 EmergoEurope (31)(0) 70 345-8570  
 Molsnstraat 15  
 2513 BH Hague, The Netherlands

**Warranty:**

No products or "Instructions For Use (IFU)" are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products. Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used

Storage: 2° C  8° C ScyTek Laboratories, Inc.  
205 South 600 West  
Logan, UT 84321  
U.S.A. EmergoEurope (31)(0) 70 345-8570  
Molsnstraat 15  
2513 BH Hague, The Netherlands