

APPLICATIONS OF HYPOXYPROBE™-1 IN NORMAL AND TUMOR TISSUES

CELL CULTURE

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NORMAL TISSUE - EXPERIMENTAL

Bladder

1. Ghafar, M. A., Anastasiadis, A. G., Olsson, L. E., Chichester, P., Kaplan, S. A., Buttyan, R., and Levin, R. M. Hypoxia and an angiogenic response in the partially obstructed rat bladder. *Lab Invest*, 82: 903-909, 2002.

2. Ghafar, M. A., Shabsigh, A., Chichester, P., Anastasiadis, A. G., Borow, A., Levin, R. M., and Buttyan, R. Effects of chronic partial outlet obstruction on blood flow and oxygenation of the rat bladder. *J Urol*, *167*: 1508-1512, 2002.
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Bone

1. Dodd, J. S., Raleigh, J. A., and Gross, T. S. Osteocyte hypoxia: a novel mechanotransduction pathway. *Am. J. Physiol. Renal. Physiol.*, *277*: C598-602, 1999.
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Brain

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Embryo

1. Lee, Y. M., Jeong, C. H., Koo, S. Y., Son, M. J., Song, H. S., Bae, S. K., Raleigh, J. A., Chung, H. Y., Yoo, M. A., and Kim, K. W. Determination of hypoxic region by hypoxia marker in developing mouse embryos in vivo: a possible signal for vessel development. *Dev. Dyn.*, *220*: 175-186, 2001.

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Eye

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Heart

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Inflammatory cells

1. Arteel, G. E., Iimuro, Y., Yin, M., Raleigh, J. A., and Thurman, R. G. Chronic enteral ethanol treatment causes hypoxia in rat liver tissue in vivo. *Hepatology*, 25: 920-926, 1997.
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Kidney

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Liver

1. Cobb, L. M., Nolan, J., and Butler, S. A. Distribution of pimonidazole and RSU 1069 in tumour and normal tissues. *Br J Cancer*, 62: 915-918, 1990.
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Ovary

1. Morani, A., Barros, R. P., Imamov, O., Hultenby, K., Arner, A., Warner, M., and Gustafsson, J. A. Lung dysfunction causes systemic hypoxia in estrogen receptor

beta knockout (ERbeta^{-/-}) mice. *Proc Natl Acad Sci U S A*, *103*: 7165-7169, 2006.

Pancreas

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Prostate

1. Shabsigh, A., Ghafar, M. A., de la Taille, A., Burchardt, M., Kaplan, S. A., Anastasiadis, A. G., and Buttyan, R. Biomarker analysis demonstrates a hypoxic environment in the castrated rat ventral prostate gland. *J Cell Biochem*, *81*: 437-444, 2001.
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Skin

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Thymus

1. Hale, L. P., Braun, R. D., Gwinn, W. M., Greer, P. K., and Dewhirst, M. W. Hypoxia in the thymus: role of oxygen tension in thymocyte survival. *Am J Physiol Heart Circ Physiol*, *282*: H1467-1477, 2002.

Urethra

1. Damaser, M. S., Whitbeck, C., Chichester, P., and Levin, R. M. Effect of vaginal distension on blood flow and hypoxia of urogenital organs of the female rat. *J Appl Physiol*, *98*: 1884-1890, 2005.

Vagina

1. Damaser, M. S., Whitbeck, C., Chichester, P., and Levin, R. M. Effect of vaginal distension on blood flow and hypoxia of urogenital organs of the female rat. *J Appl Physiol*, 98: 1884-1890, 2005.

Wounds

1. Haroon, Z. A., Raleigh, J. A., Greenberg, C. S., and Dewhirst, M. W. Early wound healing exhibits cytokine surge without evidence of hypoxia. *Ann Surg*, 231: 137-147, 2000.
2. Albina, J. E., Mastrofrancesco, B., Vessella, J. A., Louis, C. A., Henry, W. L., Jr., and Reichner, J. S. HIF-1 expression in healing wounds: HIF-1alpha induction in primary inflammatory cells by TNF-alpha. *Am J Physiol Cell Physiol*, 281: C1971-1977, 2001.
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CANCER– EXPERIMENTAL

Brain

1. Bernsen, H. J., Rijken, P. F., Peters, J. P., Bakker, J. H., Boerman, R. H., Wesseling, P., and van der Kogel, A. J. Suramin treatment of human glioma xenografts; effects on tumor vasculature and oxygenation status. *J Neurooncol*, 44: 129-136, 1999.
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5. Eikesdal, H. P., Bjerkvig, R., Raleigh, J. A., Mella, O., and Dahl, O. Tumor vasculature is targeted by the combination of combretastatin A-4 and hyperthermia. *Radiother Oncol*, 61: 313-320, 2001.
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