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Technical Data Sheet:
KRAS Mutant-A375-LUC2

ATCC® Number	CRL-1619IG-1 -LUC2™
Organism	*Homo sapiens*
Tissue/Disease Source	Malignant melanoma
Product Description	KRAS Mutant-A375 Isogenic-Luc2
Application	BRAF drug resistant melanoma model. Excellent signal/background ratio and stable luciferase expression make this cell line ideal for *in vivo* bioluminescence imaging of xenograft animal model to study human cancer and monitor activity of anti-cancer drug. It also can be used in cell-based assays for cancer research.

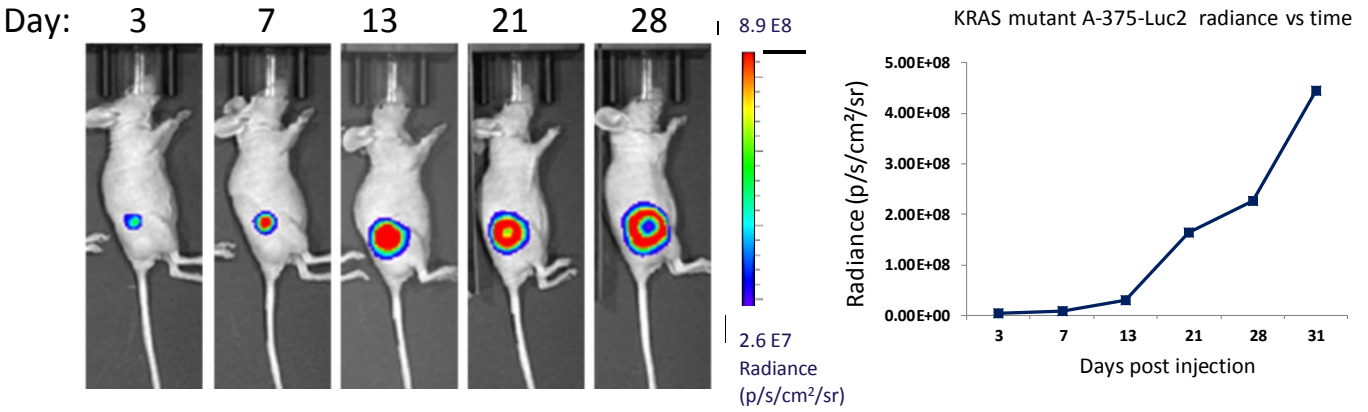

Figure 1: ***In vivo*** **detection of luciferase activity of KRAS Mutant-A375-Luc2.** KRAS Mutant-A375-Luc2 cells (3 x 10^6) were injected subcutaneously into the dorsal region near the thigh of female nude mice. Tumor growth was monitored weekly using a Xenogen IVIS Spectrum. *In vivo* bioluminescence imaging demonstrated the progression of tumors.

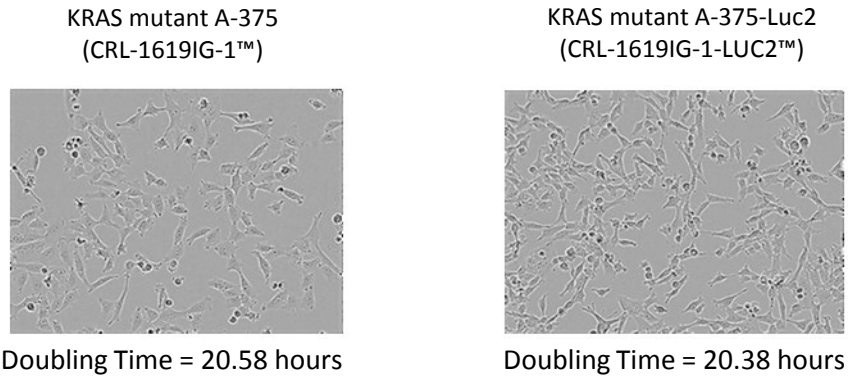

Figure 2: Cell morphology of KRAS Mutant-A375 parental and KRAS mutant A-375-Luc2. Cells were maintained in ATCC recommended culture conditions. Cell morphology was observed under Nikon™ microscopy and images were captured by Zeiss® digital camera.

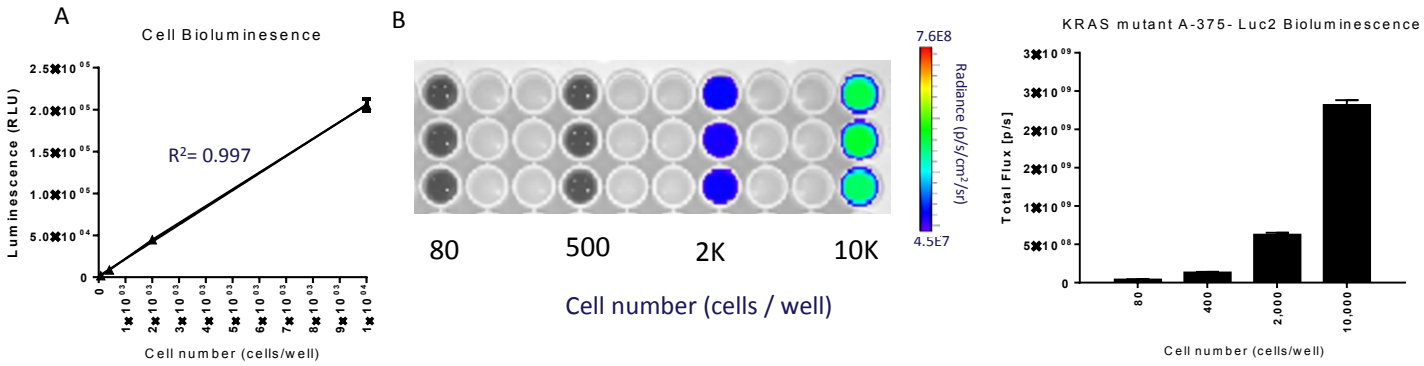

Figure 3: Linearity of luminescence and of *in vitro* quantification of luciferase activity of KRAS Mutant-A375 Isogenic-Luc2. Cells were seeded in a 96-well plate at indicated cell numbers per well, and Bright-Glo (Promega) was added to the indicated wells. The luminescence of the plate was read within 10 minutes using a luminescence plate reader (A) and determined to have a linear correlation of bioluminescence intensity with cell numbers. (B) The plate was imaged using a Xenogen IVIS Spectrum to quantify that photons emitted per cell.