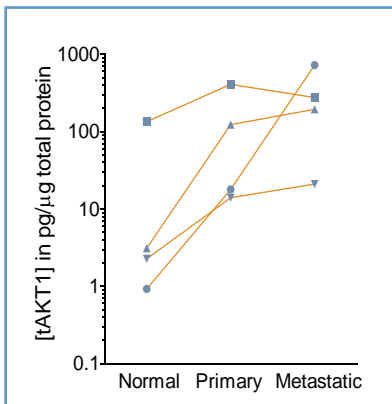
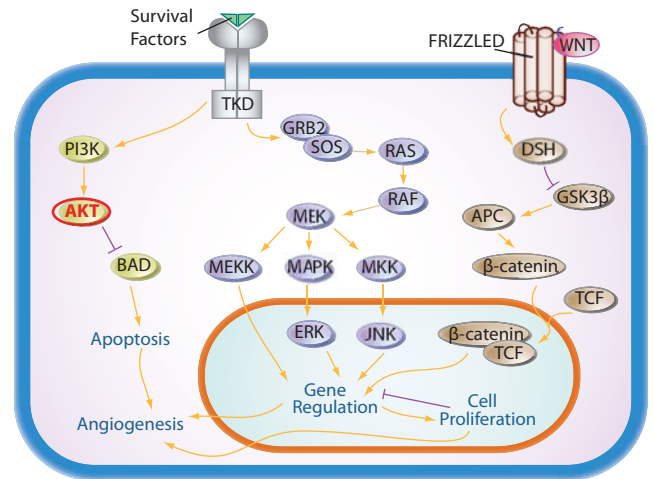


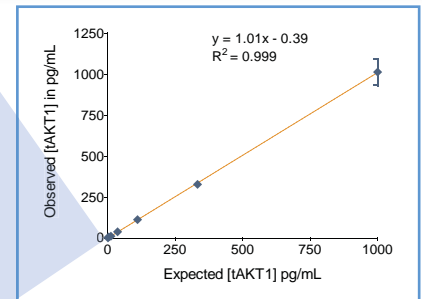
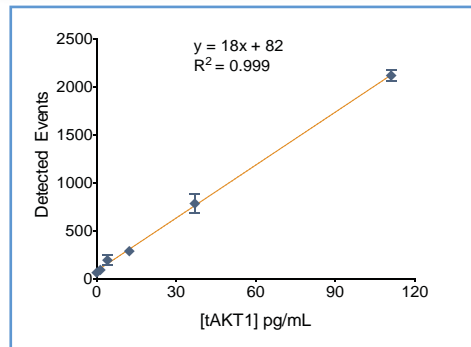
## Biology and Disease

The serine-threonine protein kinase AKT family is the primary downstream mediator of the phosphatidylinositol-3-kinase (PI3K) signaling pathway. Members of the family (AKT1, AKT2, and AKT3) require two separate kinases for complete activation. AKT1 phosphorylates mTOR, whose downstream targets include other kinases, cell cycle regulators, and transcription factors that are essential for many cell proliferation and survival processes. AKT1 also up-regulates matrix metalloproteinases and is thus implicated in tumor progression. AKT1 and other members of the AKT family have been an important focus in therapeutic development with their broad effects on the PI3K pathway.



**FIGURE 1:** Mean endogenous [tAKT1] measured in matched normal, metastatic and primary tumor tissue samples from four individual patients.

The Erenna® total-AKT1 Immunoassay Evaluation Reagent Kit is able to quantify [tAKT1] elevations in metastatic and primary tumor tissues compared to adjacent normal tissue, demonstrating the sensitivity needed to accurately quantify endogenous tAKT1 in clinically relevant tissue types.

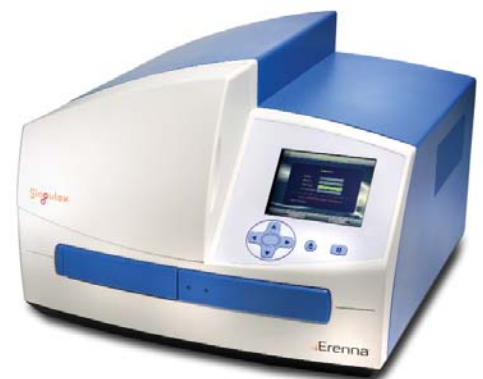


**FIGURE 2:** Erenna® tAKT1 Immunoassay Evaluation Reagent Kit low-end standard curve signal (left) and curve fit (above).

**TABLE 1:** Analytical sensitivity of the Erenna® tAKT1 Immunoassay Evaluation Reagent Kit<sup>1</sup>

Lower Limit of Detection	1.4 pg/mL
Lower Limit of Quantification <sup>2</sup>	12.3 pg/mL
Upper Limit of Quantification	1000 pg/mL
Low-end CV% Average	9%
Low-end CV% Range	3 - 14%
Assay Volume	100 µL

<sup>1</sup> see product insert for updated values  
<sup>2</sup> LLoQ ≤ 20% CV and ± 20% recovery



Representative data shown for demonstration purposes only. Individual results may vary depending upon samples tested and protocol used.