



# AKT (pan)

## Mouse monoclonal Antibody

### #53558

**Catalog Number:** 53558

**Amount:** 100µg/100µl

**Swiss-Prot No. :** P31749;P31751;Q9Y243

**Gene name:** akt

**Gene id:** 207;208;10000

**Clone Number:** 3B11-G8-B1

**Form of Antibody:** Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol

**Storage/Stability:** Store at -20°C/1 year

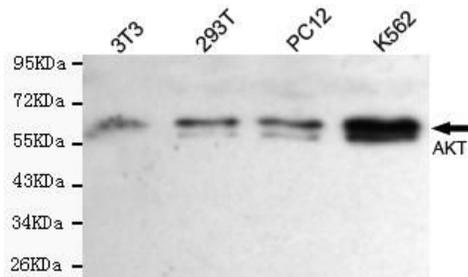
**Immunogen:** Purified recombinant human AKT1 protein fragments expressed in E.coli.

**Purification:** affinity-chromatography

**Specificity/Sensitivity:** This antibody detects endogenous levels of AKT and does not cross-react with related proteins

**Reactivity:** Human, Mouse, Rat

**Applications:** Predicted MW: 60kd WB: 1:1000



Western blot detection of total AKT in rat heart, rat testis, mouse brain, mouse spleen and C6 cell lysates and using AKT(pan) mouse mAb (1:1000 diluted). Predicted band size: 60KDa. Observed band size: 60KDa.

### Background :

Akt1 is involved in cellular survival pathways, by inhibiting apoptotic processes. Akt1 is also able to induce protein synthesis pathways, and is therefore a key signaling protein in the cellular pathways that lead to skeletal muscle hypertrophy, and general tissue growth. Since it can block apoptosis, and thereby promote cell survival, Akt1 has been implicated as a major factor in many types of cancer. Akt (now also called Akt1) was originally identified as the oncogene in the transforming retrovirus, AKT8. Akt2 is an important signaling molecule in the Insulin signaling pathway. It is required to induce glucose transport. In a mouse which is null for Akt1 but normal for Akt2, glucose homeostasis is unperturbed, but the animals are smaller, consistent with a role for Akt1 in growth. In contrast, mice which do not have Akt2, but have normal Akt1, have mild growth deficiency and display a diabetic phenotype (insulin resistance), again consistent with the idea that Akt2 is more specific for the insulin receptor signaling pathway. The role of Akt3 is less clear, though it appears to be predominantly expressed in the brain. It has been reported that mice lacking Akt3 have small brains.