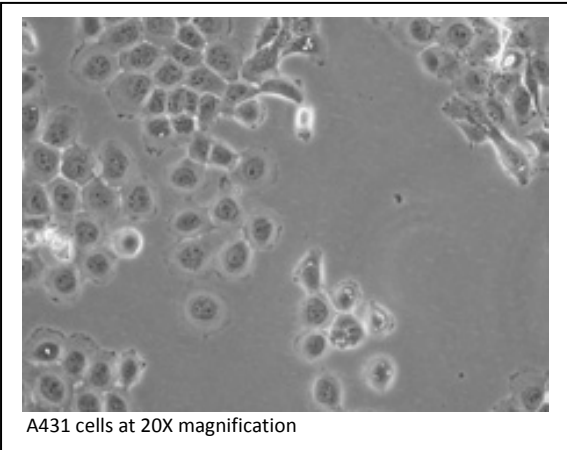


# A431 cells

## Handling suggestions for A431 cells

A431 cells are derived from an 85-year old female epidermis. The epidermoid carcinoma cell line expresses very high levels of the epidermal growth factor (EGF) receptor, and displays a high basal activation of the MAPK pathway. As such, further activation of MAPK pathway components beyond basal levels of activation is difficult for targets such as MEK and ERK, even with serum starvation. However, use of an EGF receptor inhibitor such as AG1478 can dramatically reduce the MAPK signaling pathway activation. STAT signaling via the EGF receptor can also be induced in A431 cells, and STAT1, STAT3 and STAT5 phosphorylation are all readily detectable.



**Cell type:** epithelial  
**Disease:** epidermoid carcinoma  
**Growth:** adherent  
**Organism:** Human  
**Source:** ATCC Cat#CRL-1555,  
ECACC Cat#85090402

**Suggested media:**  
DMEM (Gibco Cat#11960) supplemented with 10% FBS (Gibco)  
1% Non-essential amino acids (Gibco Cat#11140)  
1% Sodium pyruvate (Gibco Cat#11360)  
1% Pen Strep Glutamine (Gibco Cat#10378)

**Culturing suggestions:**  
Split 1:3 when 50-70% confluent.  
Media changes every 2-3 days.

**Typically detectable signaling pathways:**  
MAPK (high basal phosphorylation)  
STAT1/3/5  
Akt

**Known Receptors:**  
EGFR, ErbB2, IGF-1R