

## BJ-TSA-9 (I-15): sc-86979

### BACKGROUND

Lung cancer is defined as the malignant metamorphosis and expansion of lung tissue. The most deadly of all cancers, lung carcinoma is responsible for millions deaths annually. Initially an illness predominantly affecting males, incidence in women continues to increase, most likely a result of the emerging ratio of female to male smokers. BJ-TSA-9, also known as FAM83A or tumor-specific gene expressed in prostate protein, is a 434 amino acid protein that belongs to the FAM83 family. Existing as three alternatively spliced isoforms, BJ-TSA-9 is highly expressed in lung cancer tissues and is considered a novel tumor specific gene and a critical biomarker for lung cancer diagnosis. The gene encoding BJ-TSA-9 is located on human chromosome 8, which is made up of nearly 146 million bases and encodes about 800 genes.

### REFERENCES

- Hackshaw, A.K. 1998. Lung cancer and passive smoking. *Stat. Methods Med. Res.* 7: 119-136.
- Witschi, H. 2001. A short history of lung cancer. *Toxicol. Sci.* 64: 4-6.
- Alberg, A.J. and Samet, J.M. 2003. Epidemiology of lung cancer. *Ther. Umsch.* 123: S21-S49.
- Spiro, S.G. and Silvestri, G.A. 2005. One hundred years of lung cancer. *Am. J. Respir. Crit. Care Med.* 172: 523-529.
- Li, Y., Dong, X., Yin, Y., Su, Y., Xu, Q., Zhang, Y., Pang, X., Zhang, Y. and Chen, W. 2005. BJ-TSA-9, a novel human tumor-specific gene, has potential as a biomarker of lung cancer. *Neoplasia* 7: 1073-1080.
- Nusbaum, C., Mikkelsen, T.S., Zody, M.C., Asakawa, S., Taudien, S., Garber, M., Kodira, C.D., Schueler, M.G., Shimizu, A., Whittaker, C.A., Chang, J.L., Cuomo, C.A., Dewar, K., FitzGerald, M.G., Yang, X., Allen, N.R., Anderson, S., et al. 2006. DNA sequence and analysis of human chromosome 8. *Nature* 439: 331-335.
- Qu, Y.M., Liao, G.Q., Liu, P.H., Wang, H.M., Liu, L., Li, L.L. and Xie, G.Q. 2010. Clinical significance of expressions of tumor markers in peripheral blood in non-small cell lung cancer. *Zhonghua Yi Xue Za Zhi* 90: 1958-1962.

### CHROMOSOMAL LOCATION

Genetic locus: FAM83A (human) mapping to 8q24.13; Fam83a (mouse) mapping to 15 D1.

### SOURCE

BJ-TSA-9 (I-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BJ-TSA-9 of human origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86979 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

BJ-TSA-9 (I-15) is recommended for detection of BJ-TSA-9 of human origin and Fam83a of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BJ-TSA-9 (I-15) is also recommended for detection of BJ-TSA-9 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for BJ-TSA-9 siRNA (h): sc-77619, Fam83a siRNA (m): sc-141559, BJ-TSA-9 shRNA Plasmid (h): sc-77619-SH, Fam83a shRNA Plasmid (m): sc-141559-SH, BJ-TSA-9 shRNA (h) Lentiviral Particles: sc-77619-V and Fam83a shRNA (m) Lentiviral Particles: sc-141559-V.

Molecular Weight of BJ-TSA-9: 47 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.