**Identity**

Hugo: TSPAN1  
Other names:  9030418M05Rik; NET-1; RP11-322N21.1; TSPAN-1  
Location: 1p34.1

**DNA/RNA**

**Description**
The TSPAN1 gene is located on chromosome 1 in a 5419 bp sequence (46418799..46424217). The gene contains 10 exons.

**Transcription**
mRNA: 1297 nucleotides in length.

**Protein**

**Description**
241 amino acids, 26.2 kDa protein. The 241 amino acid sequence is:

1. mqcfsfiktm milfnllifl cgaallavgi wvsidgasfl kifgp lsssa
2. mqvavvflgflgcgygakt eskalvflf silffiliae vaaavallyt
3. tmaehfltl;
4. lvvpalikkdy gsgedtqtwv nttnrgkcc gfnrytdfed spykensaf
5. ppfcdnrvt;
6. 181 nianetctkq kahdqkvegc fnqlydirt navtvvgvaa gigglelaam
7. ivsmylyon;
8. 241 q

**Expression**
Widely expressed.

**Localisation**
Plasma membrane.

**Function**
The protein encoded by this gene is a member of the transmembrane 4 superfamily, also known as the tetraspanin family. These are cell-surface proteins that are characterized by the presence of four hydrophobic domains. The proteins mediate signal transduction events that play a role in the regulation of cell development, activation, growth and motility.

**Homology**
Holomogy with Pan troglodytes (100%); Canis lupus familiaris (89%); Mus musculus (82%), Rattus norvegicus (82%), Gallus gallus (70%).

**Mutations**
Note: TSPAN1 is subject to the following misense mutations:

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**Implicated in**

**Cervical cancer**

**Disease**
Cervical cancer is a malignant carcinoma or the cervix, typically composed of squamous cells. Most studies
have found that human papillomavirus (HPV) infection is responsible for virtually all cases of cervical cancer.

**Prognosis**

Prognosis depends on the stage of the cancer. The 5 year survival rate with treatment is 80 to 90% in patients with stage I disease and 50 to 65% in patients with stage II disease. 25 to 35% of women with stage III cancer and 15% or fewer of those with stage IV cancer are alive after 5 years. Prognosis drops dramatically with tumor metastasis. Thirty-five percent of patients with invasive cervical cancer have persistent or recurrent disease after treatment.

**Hepatocellular carcinoma**

**Disease**

Hepatocellular carcinoma (HCC) is a malignancy of the liver. Most cases of HCC are secondary to either a hepatitis B or C infection or cirrhosis.

**Prognosis**

The prognosis of HCC is dependent on many factors, including tumor size, tumor staging, the involvement of liver vessels, the presence of extrahepatic metastases and the vascularisation of the tumor.

**References**


_This article should be referenced as such:_