

**S2 Table.** Types of mutation reported in previous studies of Korean patients with Li-Fraumeni syndrome

| Study                    | Study design<br>(patient number) | Nucleotide alteration  | Amino acid alteration     | Mutation type | Frequency |
|--------------------------|----------------------------------|------------------------|---------------------------|---------------|-----------|
| Park et al. (2016) [1]   | Case series (14)                 | c.78delT               | p.Pro27Leufs*17           | Frameshift    | 1         |
|                          |                                  | c.91G>A                | p.Val31Ile                | Missense      | 2         |
|                          |                                  | c.293delC              | p.Pro98Leufs*25           | Frameshift    | 1         |
|                          |                                  | c.524G>A <sup>a)</sup> | p.Arg175His <sup>a)</sup> | Missense      | 3         |
|                          |                                  | c.566C>T               | p.Ala189Val               | Missense      | 1         |
|                          |                                  | c.742C>T <sup>a)</sup> | p.Arg248Trp <sup>a)</sup> | Missense      | 1         |
|                          |                                  | c.818G>A <sup>a)</sup> | p.Arg273His <sup>a)</sup> | Missense      | 3         |
|                          |                                  | c.817C>T <sup>a)</sup> | p.Arg273Cys <sup>a)</sup> | Missense      | 1         |
|                          |                                  | c.859G>T               | p.Glu287*                 | Nonsense      | 1         |
|                          |                                  |                        |                           |               |           |
| Alyami et al. (2021) [2] | Case series (12)                 | c.78delT               | p.Pro27Leufs*17           | Frameshift    | 1         |
|                          |                                  | c.375G>A               | p.Thr125=                 | Silent        | 1         |
|                          |                                  | c.524G>A <sup>a)</sup> | p.Arg175His <sup>a)</sup> | Missense      | 1         |
|                          |                                  | c.542G>A               | p.Arg181His               | Missense      | 1         |
|                          |                                  | c.566C>T               | p.Ala189Val               | Missense      | 1         |
|                          |                                  | c.590T>G               | p.Val197Gly               | Missense      | 1         |
|                          |                                  | c.638G>A               | p.Arg213Gln               | Missense      | 1         |
|                          |                                  | c.730G>A               | p.Gly244Ser               | Missense      | 1         |
|                          |                                  | c.743G>A               | p.Arg248Gln               | Missense      | 2         |
|                          |                                  | c.742C>T <sup>a)</sup> | p.Arg248Trp <sup>a)</sup> | Missense      | 1         |
|                          |                                  | c.824G>A               | p.Cys275Tyr               | Missense      | 1         |
| Bang et al. (1995) [3]   | Case report (1)                  | c.742C>T <sup>a)</sup> | p.Arg248Trp <sup>a)</sup> | Missense      | 1         |
| Kim et al. (2005) [4]    | Case report (1)                  | c.859G>T               | p.Glu287*                 | Nonsense      | 1         |
| Baek et al. (2019) [5]   | Case report (1)                  | c.542G>A               | p.Arg181His               | Missense      | 1         |
| Hwang et al. (2008) [6]  | Case report (1)                  | c.524G>A <sup>a)</sup> | p.Arg175His <sup>a)</sup> | Missense      | 1         |
| Shin et al. (2009) [7]   | Case report (1)                  | c.818G>A <sup>a)</sup> | p.Arg273His <sup>a)</sup> | Missense      | 1         |
| Cho et al. (2013) [8]    | Case report (1)                  | c.566C>T               | p.Ala189Val               | Missense      | 1         |
| Oh et al. (2014) [9]     | Case report (1)                  | c.524G>A <sup>a)</sup> | p.Arg175His <sup>a)</sup> | Missense      | 1         |
| Ku et al. (2020) [10]    | Case report (1)                  | c.743G>A               | p.Arg248Gln               | Missense      | 1         |

<sup>a)</sup>The same mutations as in this study.

## References

- Park KJ, Choi HJ, Suh SP, Ki CS, Kim JW. Germline TP53 mutation and clinical characteristics of Korean patients with Li-Fraumeni syndrome. Ann Lab Med. 2016;36:463-8.
- Alyami H, Yoo TK, Cheun JH, Lee HB, Jung SM, Ryu JM, et al. Clinical features of breast cancer in South Korean patients with germline TP53 gene mutations. J Breast Cancer. 2021;24:175-82.
- Bang YJ, Kang SH, Kim TY, Jung CW, Oh SM, Choe KJ, et al. The first documentation of Li-Fraumeni syndrome in Korea. J Korean Med Sci. 1995;10:205-10.
- Kim IJ, Kang HC, Shin Y, Yoo BC, Yang HK, Park JG. Familial gastric cancers with Li-Fraumeni syndrome: a case repast. World J Gastroenterol. 2005;11:4124-6.
- Baek YS, Seo JY, Song JY, Lee SY, Kim A, Jeon J. Li-Fraumeni syndrome presenting as cutaneous melanoma in a child: case report and review of literature. J Eur Acad Dermatol Venereol. 2019;33:e174-5.
- Hwang SM, Lee ES, Shin SH, Kong SY. Genetic counseling can influence the course of a suspected familial cancer syndrome patient: from a case of Li-Fraumeni like syndrome with a germline mutation in the TP53 gene. Korean J Lab Med. 2008;28:493-7.
- Shin HJ, Kwon YJ, Lim YJ, Park BK, Ghim TT, Shin SH, et al. Family of Li-Fraumeni syndrome with a germline mutation in the p53 gene. Clin Pediatr Hematol Oncol. 2009;16:38-42.
- Cho Y, Kim J, Kim Y, Jeong J, Lee KA. A case of late-onset Li-Fraumeni-like syndrome with unilateral breast cancer. Ann Lab Med. 2013;33:212-6.
- Oh CS, Lee JH, Jung ST, Na BR. Osteosarcoma with adenocarcinoma of lung in Li-Fraumeni

syndrome: a case report. J Korean Bone Joint Tumor Soc. 2014;20:99-103.

10. Ku I, Park JU. Dermatofibrosarcoma in Li-Fraumeni syndrome with early-onset multiple primary tumors. J Dermatol. 2020;47:e333-5.