Integrins are transmembrane proteins that mediate cell adhesion between adjacent cells and/or the extracellular matrix (ECM). Integrins have diverse roles in several biological processes including cell migration during development and wound healing, cell differentiation, and apoptosis. Their activities can also regulate the metastatic and invasive potential of tumor cells. Each integrin exists as a heterodimer consisting of an \( \alpha \) subunit (\( \alpha \)) and a \( \beta \) subunit (\( \beta \)). As illustrated, 18 \( \alpha \) subunits and 8 \( \beta \) subunits are known in mammals and form 24 identified \( \alpha \beta \) heterodimers that vary in ligand specificity.

**LIGAND KEY**

- Brown: Laminin
- Blue: Collagen
- Green: Fibronectin
- Yellow: Osteopontin
- Pink: VCAM-1
- Purple: ICAM
- Red: Fibrinogen
- Pink: Vimentin
- Red: LAP-TGF-\( \beta \)
- Pink: E-Cadherin
- Yellow: Thrombospondin
- Light Green: VEGF