```
iseg_is_sublist  THM

⊢  ∀T:Type, L_1,L_2:T List. L_1 ≤ L_2 ⇒ L_1 ⊆ L_2
| by Unfold ‘sublist‘ 0 THEN Auto
THEN InstLemma ‘iseg_length‘ [T;L_1
|    ;L_2] THENA Auto
THEN InstLemma ‘iseg_select‘ [T;L_1;L_2
|    ] THENA Auto
THEN InstConcl [λi.i] THEN Reduce 0 THEN Auto’

|    THEN Try (BackThruLemma ‘id_increasing‘ THEN Auto’)
|
1. T : Type
2. L_1 : T List
3. L_2 : T List
4. L_1 ≤ L_2
5. ||L_1||≤||L_2||
6. L_1 ≤ L_2 ⇒ ||L_1||≤||L_2|| & (∀i:ℕ. i<||L_1|| ⇒ L_1[i] = L_2[i])
7. L_1 ≤ L_2 ⇐ (||L_1||≤||L_2||
   & (∀i:ℕ. i<||L_1|| ⇒ L_1[i] = L_2[i]))
8. j : ℕ||L_1||
⊢  L_1[j] = L_2[j]  by ThinTrivial THEN ExRepD THEN EasyHyp
END
```